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MANUFACTURES

TEXTILES

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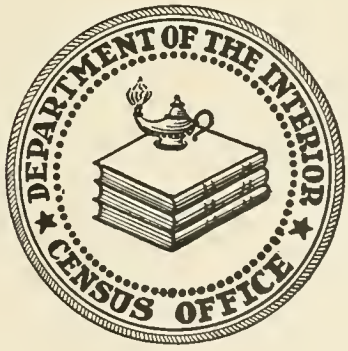
CHIEF STATISTICIAN FOR MANUFACTURES



WASHINGTON
UNITED STATES CENSUS OFFICE
1902

TABLE OF CONTENTS.

	Page.
LETTER OF TRANSMITTAL OF CHIEF STATISTICIAN FOR MANUFACTURES TO THE DIRECTOR OF THE CENSUS	ix
COMBINED TEXTILES. By Edward Stanwood	1–16
The textile industry of the United States	3–16
General discussion	3, 4
The position of the United States among nations in the manufacture of textiles	4–8
Table 1.—Domestic products, exports, imports, and consumption, 1870 to 1900	5
A general survey of the textile industry	8, 9
Table 2.—Comparative summary, by industries, 1850 to 1900	8
Table 3.—Per cent of increase in average number of wage-earners and in value of products, 1850 to 1900	9
Number of establishments	9
The general growth in twenty years	9, 10
Table 4.—Comparative summary, 1880 to 1900, with percentages of increase	10
Capital invested	10, 11
Table 5.—Comparative summary of capital, 1840 to 1900	10
Cost of materials and value of products	11, 12
Table 6.—Cost of materials and value of products, 1890 and 1900	11
Table 7.—Comparative summary, value of products, 1810 to 1900	11
Consumption of textile fibers	12
Table 8.—Consumption of textile fibers, 1840 to 1900	12
Employees and their wages	12, 13
Table 9.—Average number of wage-earners and total wages, by industries, 1900	12
Table 10.—Average number of wage-earners and proportion of men, women, and children, 1880 to 1900	13
Geographic distribution	13–16
Table 11.—Comparative summary, by states arranged geographically, 1880 to 1900	14, 15
COTTON MANUFACTURES. By Edward Stanwood	17–72
General discussion	19–21
The foreign trade in cotton goods	21–26
Table 1.—Annual imports of manufactures of cotton, 1821 to 1900, inclusive	21, 22
Table 2.—Annual exports of manufactures of cotton, 1826 to 1900, inclusive	23, 24
Table 3.—Annual exports of foreign manufactures of cotton, 1821 to 1900, inclusive	25, 26
The general progress of the industry	27–72
Table 4.—Comparative summary, 1840 to 1900, with percentages of increase	27
Table 5.—Combined summary, cotton goods and cotton small wares, 1900, with percentages	27
Geographic distribution of the industry	28–30
Table 6.—Number of spindles in cotton mills within 30 miles of Providence, R. I.	30
Capital	30, 31
Table 7.—Capital, by geographic divisions, with per cent of increase, 1890 and 1900	30
Table 8.—Comparison of capital of corporations, as reported at census, by states and geographic divisions, 1900	31
Employees and wages	31–33
Table 9.—Average number of wage-earners—men, women, and children—by geographic divisions, 1880 to 1900	32
Table 10.—Wage-earners—percentage of men, women, and children—by geographic divisions, 1880 to 1900	32
Skilled operatives	33
Wages	33
Miscellaneous expenses	33
Table 11.—Comparative summary, miscellaneous expenses, 1890 and 1900	33

COTTON MANUFACTURES—Continued.
The general progress of the industry—Continued. Page.
Materials used ... 33–38
Cotton ... 33, 34
"Other domestic" cotton ... 34–36
Table 12.—Quantities of raw cotton produced, imported, exported, and retained for consumption, 1880 to 1900 ... 35
Table 13.—Quantity and cost of domestic cotton, other than sea-island, consumed, by states geographically arranged, 1880 to 1900 ... 35, 36
Sea-island cotton ... 36, 37
Egyptian cotton ... 37
Yarn purchased ... 37
Yarns other than cotton ... 37, 38
Other materials ... 38
Products ... 38, 39
Table 14.—Products of cotton mills in detail, 1890 and 1900 ... 38
Materials and products twice reported ... 39, 40
Dyeing and finishing ... 40
Table 15.—Dyeing and finishing in cotton mills and in independent establishments, 1900 ... 40
Fineness of goods—average number of yarn ... 41, 42
Table 16.—Yarns spun, classified by grade, by states geographically arranged, 1890 and 1900 ... 42
Power ... 42, 43
Machinery ... 43, 44
The progress of the industry as indicated by the number of spindles ... 44–48
Table 17.—Number of active cotton spindles in the textile industry, by states geographically arranged, 1890 and 1900 ... 45
Table 18.—Number of spindles in cotton mills, by states geographically arranged, 1880, 1890, and 1900 ... 46
Table 19.—Number of frame spindles sold, January 1, 1890, to January 1, 1900 ... 48
Consumption of cotton per spindle ... 48–50
Table 20.—Number of spindles to each wage-earner, and the amount paid for labor to each spindle, by states geographically arranged, 1880 to 1900 ... 49, 50
Looms ... 50–52
Table 21.—Number and classification of looms, by geographic divisions, 1890 and 1900 ... 51
Table 22.—Number and capacity of spinning mills, weaving mills, and mills which do both spinning and weaving, by states geographically arranged, 1900 ... 52
Mercerization ... 52, 53
Table 23.—Comparative summary, cotton goods and cotton small wares, by states and territories geographically arranged, 1840 to 1900 ... 54–59
Table 24.—Detailed summary, by states geographically arranged, 1900 ... 60–69
Cotton small wares ... 70–72
Table 25.—Summary ... 70
Table 26.—Detailed summary, by states, 1900 ... 71, 72
WOOL MANUFACTURES, *also hosiery and knit goods, shoddy, and fur hats.* By William J. Battison ... 73–195
Table 1.—Wool manufacture, including hosiery and knit goods: comparative summary, 1880 to 1900, with percentages of increase ... 75
Table 2.—Wool manufacture, including hosiery and knit goods: comparative summary, educational, eleemosynary, and penal institutions, 1890 and 1900 ... 76
The wool manufacture ... 76–108
Table 3.—Comparative summary, 1850 to 1900 ... 76
Conditions in 1900 ... 77
Imports of wool ... 77, 78
Imports of wool goods ... 78
Rank of states in wool manufacture according to value of products ... 78, 79
Table 4.—Rank of states, by value of products, 1890 and 1900 ... 78
Table 5.—Machinery of wool manufacture: 1880 to 1900 ... 79
Carding mills ... 79–82
Table 6.—Wool carding: comparative summary, by states, 1890 and 1900 ... 80
Comparison of mills by sets of cards ... 81, 82
Table 7.—Number of mills according to sets of cards, 1890 and 1900 ... 81
The card wool manufacture ... 82, 83
Table 8.—Carding machinery: by states, 1870 to 1900 ... 83
The worsted manufacture ... 83, 84
Table 9.—Number of combing machines, by states, 1870 to 1900 ... 83
Spindles ... 84
Doubling spindles ... 84, 85
Productive capacity ... 85
Idle capital and machinery ... 85, 86
Table 10.—Idle capital and machinery, by states, 1900 ... 85
Power ... 86
Table 11.—Power and labor, 1880 to 1900 ... 86

WOOL MANUFACTURES, ETC.—Continued.
The wool manufacture—Continued. Page.
Depreciation of plant ... 86, 87
Capital ... 87
Wage-earners and wages ... 87
Conditions of wage-earners ... 87
Materials used in the wool manufacture ... 88–97
Table 12.—Kind, quantity, and cost of materials used, 1900 ... 88
Net wool supply, foreign and domestic ... 88, 89
Domestic wool ... 89
Imports of foreign wool, 1822 to 1900 ... 89–91
The foreign sources of wool supplies ... 91
Class III wools and imports of, by countries of production ... 91
Class I wools and imports of, by countries of production ... 91, 92
Class II wools and imports of, by countries of production ... 92
Wools entered for consumption ... 92, 93
Table 13.—Wools entered for consumption in the United States, 1867 to 1900, by class, quantity, and value ... 92
Wool consumption ... 93, 94
Cotton and cotton yarns ... 94, 95
Shoddy ... 95
Average cost of scoured wool ... 95, 96
Dyestuffs and chemicals ... 96
Yarns, purchased ... 96, 97
Dyeing and finishing ... 97
Products ... 97–108
Gross and net values ... 97–99
Table 14.—Kind, quantity, and value of products, 1890 and 1900, with per cent of increase ... 98
Class I.—Woolen goods ... 99–101
Table 15.—Comparative summary, 1840 to 1900, with percentages of increase ... 99
Cloths, cassimeres, etc ... 100
Union or mixed goods for men's wear ... 100
Cotton warp goods ... 100
Flannels ... 100, 101
Blankets ... 101
Shawls ... 101
Woolen dress goods ... 101
Class II.—Worsted goods ... 101–104
Table 16.—Comparative summary, 1860 to 1900, with per cent of increase for each decade ... 102
Worsted cloths ... 102, 103
Dress goods ... 103
Worsted dress goods ... 103
Woolen dress goods ... 103, 104
Braids ... 104
Plushes and pile fabrics ... 104
Class III.—Carpets and carpeting ... 104–107
Table 17.—Comparative summary, 1850 to 1900, with percentages of increase ... 105
Materials consumed ... 106
Production ... 106, 107
Class IV.—Felt goods ... 107, 108
Table 18.—Comparative summary, 1880 to 1900, with percentages of increase ... 107
Class V.—Wool hats ... 108
Table 19.—Comparative summary, 1880 to 1900, with percentages of increase ... 108
The fur hat manufacture ... 108–111
Table 20.—Summary for 1900 ... 109
Process of manufacture and history ... 109–111
Wool scouring and wool pulling ... 111, 112
Table 21.—Wool scouring: summary for 1900 ... 111
Table 22.—Wool pulling: summary for 1900 ... 111
Shoddy manufacture ... 112–114
Table 23.—Comparative summary, 1860 to 1900, with percentages of increase ... 112
Table 24.—Comparative summary, by states, 1880 to 1900 ... 113
Hosiery and knit goods ... 114–119
Table 25.—Comparative summary, 1850 to 1900, with percentages of increase ... 114
Establishments ... 114, 115
Capital ... 115
Machinery ... 115, 116
Table 26.—Number and width of cards, by states, 1900 ... 115
Table 27.—Number of mills according to sets of cards, 1890 and 1900 ... 116

WOOL MANUFACTURES, ETC.—Continued.
Hosiery and knit goods—Continued. Page.
Spindles ... 116
The industry by geographic divisions ... 117
New England and the Middle states ... 117
Western states ... 117
Southern states ... 117
Materials used ... 117, 118
Dyestuffs, chemicals, etc ... 118
Products ... 118, 119
Table 28.—Kind, quantity, and value of products, 1890 and 1900 ... 118, 119
Conclusion ... 119–121
Table 29.—Wool manufacture (excluding hosiery and knit goods): comparative summary by states and territories arranged geographically, 1840 to 1900 ... 122–129
Table 30.—Wool manufactures (excluding hosiery and knit goods): summary by classes, 1900 ... 130–137
Table 31.—Woolen goods: detailed summary by states, 1900 ... 138–153
Table 32.—Worsted goods: detailed summary by states, 1900 ... 154–157
Table 33.—Carpets and rugs, other than rag: detailed summary by states, 1900 ... 157–160
Table 34.—Felt goods: detailed summary by states, 1900 ... 160–162
Table 35.—Wool hats: detailed summary by states, 1900 ... 162–163
Table 36.—Carding mills: detailed summary by states, 1900 ... 164–169
Table 37.—Wool scouring: detailed summary by states, 1900 ... 170
Table 38.—Wool pulling: detailed summary by states, 1900 ... 171
Table 39.—Shoddy: detailed summary by states, 1900 ... 172–175
Table 40.—Fur hats: detailed summary by states, 1900 ... 176, 177
Table 41.—Hosiery and knit goods: comparative summary by states arranged geographically, 1850 to 1900 ... 178–183
Table 42.—Hosiery and knit goods: detailed summary by states, 1900 ... 184–195
SILK MANUFACTURES. By Franklin Allen ... 197–233
Table 1.—Comparative summary, 1850 to 1900, with per cent of increase for each decade ... 199
Table 2.—Summary of establishments with a product exceeding $500 and those with a product of less than $500 ... 200
Materials and products twice included ... 200–202
Table 3.—Elimination of materials and products twice included, by states, 1890 and 1900 ... 200
Imports and consumption of silk and silk goods ... 202, 203
Table 4.—Comparative summary of imported silk materials, and of imported and domestic manufactured silk goods, 1850 to 1900 ... 202
Materials and products, 1890 and 1900 ... 203–209
Table 5.—Comparative summary of materials and products, 1890 and 1900 ... 203
Table 6.—Comparative summary of materials, 1890 and 1900 ... 204
Sewing silk and machine twist ... 205
Broad silk weaving ... 205–208
Table 7.—Broad silk weaving mills, classified by number of looms, 1900 ... 206
Velvets ... 206, 207
Plushes ... 207, 208
Table 8.—Silk broad goods manufactured, 1900 ... 207
Table 9.—Velvet and plush weaving mills, classified by number of looms, 1900 ... 208
Silk ribbons ... 208
Table 10.—Silk ribbon weaving mills, classified by number of looms, 1900 ... 208
Throwing spindles ... 208, 209
Table 11.—Mills classified by number of throwing spindles, 1900 ... 208
Finished silk goods ... 209
Comparative statistics by states ... 209, 210
Table 12.—Comparative summary, by states, 1880, 1890, and 1900 ... 210
Capital ... 211
Table 13.—Comparative summary of capital, by states, 1890 and 1900 ... 211
Wage-earners and operatives employed ... 212, 213
Table 14.—Comparative summary of wage-earners, by states, 1870 to 1900 ... 212
Table 15.—Wage-earners classified by occupation, by states, 1900 ... 212
Counties leading in silk manufacture ... 213
Table 16.—Counties manufacturing products exceeding $1,000,000 in value, 1900 ... 213
Braids and trimmings ... 213, 214
Table 17.—Summary by states, with cost of textile materials, classified by principal textile components, 1900 ... 213, 214
Skein dyeing, piece dyeing, printing, and finishing ... 214–216
Table 18.—Skein dyeing in silk mills and dyeing plants, for silk manufacture, by states, 1900 ... 214
Table 19.—Piece dyeing in silk mills and dyeing plants, for silk manufacture, by states, 1900 ... 214
Table 20.—Silk printing in silk mills and silk-printing plants, for silk manufacture, by states, 1900 ... 215
Table 21.—Silk finishing in silk mills and silk-finishing plants, for silk manufacture, by states, 1900 ... 215
Skein dyeing ... 215, 216
Piece dyeing, printing, and finishing ... 216
Silk printing ... 216

SILK MANUFACTURES—Continued. Page.
Capacity of American mills ... 216, 217
Relative position of France and the United States ... 217, 218
World's raw silk supply ... 218, 219
Table 22.—World's production of raw silk, in kilograms and in pounds ... 218
Detailed statistics of silk manufacture ... 219
Historical and descriptive ... 220–225
General survey ... 220–222
Improvements in throwing and weaving machinery ... 222–224
Throwing ... 222, 223
Weaving ... 223, 224
Date of the establishment of the silk industry in cities, towns, etc ... 224, 225
Table 23.—Silk and silk goods, including braids and trimmings, detailed summary, by states, 1900 ... 226–233
FLAX, HEMP, AND JUTE PRODUCTS. By Edward Stanwood ... 235–242
Table 1.—Comparative summary, 1890 and 1900 ... 237
Table 2.—Summary by states, 1900 ... 237
Table 3.—Kind, quantity, and cost of materials used, 1900 ... 238
Table 4.—Kind, quantity, and value of products, 1900 ... 238
Cordage and twine ... 238, 239
Table 5.—Comparative summary, 1880 to 1900 ... 238
Table 6.—Kind, quantity, and cost of materials used, 1900 ... 239
Table 7.—Kind, quantity, and value of products, 1900 ... 239
Jute and jute goods ... 239, 240
Table 8.—Summary, 1900 ... 239
Table 9.—Kind, quantity, and cost of materials used, 1900 ... 240
Table 10.—Kind, quantity, and value of products, 1900 ... 240
Linen manufacture ... 240, 241
Table 11.—Comparative summary, 1890 and 1900 ... 240
Table 12.—Kind, quantity, and cost of materials used, 1900 ... 240
Table 13.—Kind, quantity, and value of products, 1900 ... 240
Table 14.—Flax, hemp, and jute products: detailed summary, by states, 1900 ... 241, 242
DYEING AND FINISHING TEXTILES. By Edward Stanwood ... 243–257
Table 1.—Comparative summary, 1850 to 1900, with per cent of increase for each decade ... 246
Table 2.—Comparative summary, by states, 1890 and 1900 ... 247
Table 3.—Comparative summary, kinds and quantity of goods operated upon, and value added by independent establishments, 1890 and 1900 ... 248
Table 4.—Summary by classes of textiles, 1900 ... 250, 251
Table 5.—Detailed summary, by states, 1900 ... 252–257

LETTER OF TRANSMITTAL.

DEPARTMENT OF THE INTERIOR,
CENSUS OFFICE, WASHINGTON, D. C.,
July 31, 1902.

SIR:

I have the honor to transmit herewith the text and tables of a special report upon the textile industries of the United States, as returned at the Twelfth Census.

Reports upon these industries were prepared under my direction by expert special agents of the division of manufactures, as follows: Upon combined textiles; cotton manufactures; flax, hemp, and jute products; and dyeing and finishing textiles, by Mr. Edward Stanwood; upon wool manufactures, by Mr. William J. Battison; and upon silk manufactures, by Mr. Franklin Allen.

In view of the importance of the industry, the several branches of which have been presented in separate bulletins, it is deemed advisable to bring together these several reports and publish them as a monograph, thus presenting as a separate publication the complete statistics of the textile industries of the country.

Very respectfully,

S. N. D. North

Chief Statistician for Manufactures.

HON. WILLIAM R. MERRIAM,
Director of the Census.

TEXTILES.

COMBINED TEXTILES.
COTTON MANUFACTURES.
WOOL MANUFACTURES.
SILK MANUFACTURES.
FLAX, HEMP, AND JUTE PRODUCTS.
DYEING AND FINISHING TEXTILES.

THE TEXTILE INDUSTRY OF THE UNITED STATES.

By Edward Stanwood, *Expert Special Agent.*

Not only is the textile industry one of the most important branches of manufacture in this country and throughout the world, but its product comes into an especially intimate and personal relation to mankind because it is the material from which clothing is commonly made. It appears from the returns at the census of 1900 that the grand total value of textiles and of finished articles made from them was $1,637,484,484. The sum is swelled by duplications. Yarn produced in one mill and entering into this total is reported by another mill as a material; and the woven cloth of the second mill, after having been reported as that mill's product, enters the tailor shop or the shirt factory as material once more. Eliminating duplications, by excluding from materials and products the value of the partly manufactured articles, the net value of products ready for direct consumption was $1,095,127,934. Of this huge total, $740,666,942, or over two-thirds of the whole, was the net value of the textile industry proper.

The various branches of the textile industry—the production of yarn, and its conversion, by doubling and twisting, by weaving, or by knitting—are so closely allied to each other that it is impossible radically to separate them. They may be divided sufficiently for practical purposes according to the processes employed, or, as is more customary, according to the vegetable or animal fiber which predominates in the manufacture. But it still remains true that several of the processes and different groups of these processes are combined, and that there is extensive use of two or more fibers in single establishments. A great number, in fact a large majority, of cotton-spinning factories, also weave their yarn; some of them twist and finish it into sewing thread, others knit it and make underwear. Some of them combine cotton with linen in the manufacture of towels. Many woolen and worsted mills mix cotton with wool in the production of cloth. Both cotton and woolen mills occasionally use large quantities of raw silk. Jute yarn is introduced as an adulterant in upholstery goods chiefly composed of more enduring material. The manufacturers of cordage and twine employ not only flax, hemp, jute, cotton, and other vegetable fibers, but also, to a limited extent, wool and silk.

While, therefore, it is a simple matter to classify mills according to the general nature of their business or according to the fiber chiefly used, yet it is evident that the textile industry is to be considered as a whole. A freak of fashion may at any time cause an excessive demand for silk goods, to the detriment of the manufacturers of worsteds. A scarcity of cotton, like that which occurred during the Civil War, may compel people to change their habits and use woolen products instead of cotton. It is easy to substitute articles made from another fiber than that to which one has been accustomed; indeed, within certain limits, it is easy for manufacturers to operate machinery upon another fiber than that for which it was constructed; so that the textile industry can be treated adequately only when it is treated as a unit, based upon the spindle.

This method of considering the textile branch of manufacturing was first introduced at the Eleventh Census. It is now even more reasonable than it was ten years ago, because during the interval certain new combinations of fiber use have rendered the relations between the several industries more intimate than they were. As examples, may be mentioned the production in several large cotton mills of towels and toweling from pure linen or from linen and cotton mixed, and the use in silk mills of mercerized cotton so like silk in appearance. These new features preceded the taking of the census by so short a time that an adequate inquiry into the facts was not made in all cases, particularly with reference to the extent of the new linen industry.

Ten years ago the report upon combined textiles took cognizance only of the manufactures of wool—including hosiery and knit goods, cotton and silk—and dyeing and finishing the yarns and fabrics made from them. In the present report the chief industries based upon flax, hemp, and jute are included. Other important changes will be noticed.

At the census of 1900 there was, for the first time, a separation of cotton small wares from cotton goods proper. The establishments which manufacture such articles as tape and webbings, shoe lacings, embroideries, and the like, are not in a true sense cotton factories. Few of them spin their yarn; the machinery which they employ differs materially from that of ordinary cotton mills, and they are for the most part small establishments. They belong in the general class of textile manufactories, but not in the specific category of cotton mills.

It is proper to restore to the leading rank the cotton manufacture, which was displaced from that position during the Civil War, and has occupied the second

rank in official statistics ever since, mainly because it stood second in the value of products. But it is evident that the reason why the nominal value of wool products exceeded that of cotton products was that the cost of material, pound for pound, is several times that of cotton. At present the cotton manufacture, exclusive of cotton small wares, stands first in the amount of capital, in the number of hands employed, in the amount of wages paid, and even in the value of products; but it is still slightly behind the wool manufacture in the cost of material used.

The tables accompanying this report do not include all the establishments which it might be strictly reasonable to include as manufacturing textiles. The facts relating to those which make belting and hose of either linen or cotton mixed with rubber, elastic fabrics, batting, and wadding, and a few other articles of which these are types, were ascertained by answers to the inquiries upon the general manufacturing schedule and were too incomplete in their specification of materials used to be included in the accompanying tables without danger of misleading results. The several industries here presented are as follows:

Cotton goods.
Cotton small wares.
Worsted goods.
Woolen goods.
Woolen carpets.
Felt goods.
Wool hats.
Hosiery and knit goods.
Silk goods.
Cordage and twine.
Linen goods.
Jute goods.
Dyeing and finishing textiles.

The value of product reported is in all cases the gross value at the mill, save that in the case of dyeing and finishing only the value added by the processes to which the goods were subjected is reported.

THE POSITION OF THE UNITED STATES AMONG NATIONS IN THE MANUFACTURE OF TEXTILES.

In the manufacture of textiles the progress of this country as compared with that of the world at large has been very great in recent years. In general, manufacturers may be said to have been engaged during the whole national history in conquering and occupying the home market. The domestic silk industry is a thing of yesterday. In 1870 the home manufacture represented a value of only $12,210,662. The foreign value of importations during the same year was $24,219,981. It appears from these figures that almost two-thirds of the silk goods consumed in the United States at that time was of foreign manufacture.

The wool industry existed in the country even before the era of national independence. In the year 1870 the value of products of domestic manufactures of wool was $199,257,262; that of imported was $35,032,628, or 15 per cent of the consumption of the United States, on the basis of declared foreign value. The manufacture of cotton has been conducted on a large scale for nearly a century. Before the Civil War it became a leading article of export. Nevertheless, the importation even then was of more value than the exportation. In the year 1870, selected for the present comparison in all the textiles, the value of the domestic manufacture of cotton was reported to be $177,489,739, and the value imported was $21,899,120, or 11.2 per cent of the total amount consumed.

Combining the three textile industries, the total consumption for the year 1870 was valued at $466,186,303, of which home manufactures furnished $385,034,574; and $81,151,729, or 17.4 per cent, represents the foreign value of imports. Briefly, American manufacturers supplied rather less than five-sixths of the textile goods used in the United States.

The conditions under which the several textile industries are established in a country differ in an interesting manner. The controlling influences are the supply of the raw material and the adaptability of the people to a manufacturing life. Sheep can be raised in any country where warm clothing is needed, save in the polar regions. The spinning wheel and the handloom are among the simplest forms of machinery, on which the homespun is woven. It is therefore natural that the woolen industry should spring up in primitive communities, and among people who are too poor to buy the material of their clothing; and as population increases, as the comforts of life become more available, and as labor becomes specialized and diversified, the production by machinery of woolen cloth for sale is one of the earliest developments of the manufacturing tendency. As might therefore be expected, it is found that this department of the textile industry has a place in almost all countries in which garments made of wool fiber are needed as a protection of the body against cold. It is an interesting corollary of this principle that even in this country the manufacture is carried on in almost every state in the Union, from Maine to Texas, from Florida to Washington.

Cotton is a subtropical plant. The lint can be separated from the seed by hand, and it can be spun and woven by processes as simple as those which in primitive communities convert wool into a clothing fabric. But the labor is so great and the efficiency of machinery is so superior to that of hand work that even the poorest communities can not afford to prepare the raw material and spin and weave it in this manner. Hence, virtually the whole manufacture is abandoned to the care of capital.

Moreover, inasmuch as the improvement of machinery has cheapened the processes to a wonderful degree, it has become more and more difficult for novices to engage in the business with success. The result is that the manufacture tends greatly to concentrate, to expand

in communities where already established, and to be neglected or to languish in regions where it is newly introduced, unless favored by special advantages. Such advantages may be convenient access to supplies of raw material or peculiar adaptability of the people to a manufacturing life.

In recent years there has been an introduction of the industry or a considerable growth of it from one of these two causes, in the East Indies, in China and Japan, in Canada, and in Mexico; in some of these cases the manufacture has been directly encouraged by Government measures and could hardly have been successful without that aid. It is easy to explain the very interesting and altogether marvelous expansion of the industry in the Southern states during the last decade—the most interesting feature, in fact, concerning the development of the textile manufacture during that period—upon the principles here suggested.

The situation with respect to silk is different from that of wool or cotton. Silk goods are a luxury, or at least a semiluxury. They are not required by persons devoid of æsthetic taste. They have not the warmth-giving properties of wool. They are in general a poor as well as a costly substitute for most of the purposes to which cotton goods are put. Moreover, silk culture is a difficult and uncertain occupation, requiring constant care, and often bringing disappointment and loss even to those who have bestowed the most pains upon it. One would accordingly expect to find the production of silk flourishing in those countries only where the climate is well adapted to the growth of the mulberry tree, and where the art of caring for the silkworm during all the stages of its life history has been acquired through many generations of study and experiment.

It would also be natural to expect that the communities within which the raw material is produced would engage in its conversion into yarn and cloth, and this is the case. The sources whence the nations called "civilized" first drew the fine and costly fabric of silk were India, China, and Japan, and those countries still produce articles which the Western world can hardly match. The introduction of the silkworm into central and western Europe led to an immense expansion of the manufacture in France, Austria, Switzerland, and Italy. The English, with their capacity for manufacturing, adopted the industry, relying upon imported raw silk, and it flourished for many years, but has been declining during the past half century. The Germans, nearly surrounded by countries which are extensively engaged in silk culture, although themselves producing practically no raw silk, have succeeded much better, and the history of the manufacture in the German Empire has been one of great success.

The culture of the silkworm in the United States, although often urged upon the people and many times attempted in a small way, has never proved commercially successful, and the country does not appear even among the "scattering" as a producer of raw silk. Yet under an encouraging government policy the manufacture has been firmly established. Reasons corresponding to those which caused the wool manufacture to spring up in every part of the country and which concentrated the cotton manufacture where power is cheap, where rates of transportation are low, where labor is abundant, or in the immediate vicinity of a supply of raw cotton, result in a still greater localization of the silk industry. Eleven-twelfths of all the establishments in the country are in the 5 adjoining states of Pennsylvania, New Jersey, New York, Connecticut, and Massachusetts, and of the 1,045,304 throwing spindles, 996,118—more than nineteen-twentieths of the whole—are in the mills of those states.

Table 1 shows the value of the products and the imports of cotton, wool, and silk manufactures, and percentage of imports to the total consumption, 1870 and 1900.

TABLE 1.—VALUE OF DOMESTIC PRODUCTS, EXPORTS, IMPORTS FOR CONSUMPTION, AND TOTAL CONSUMPTION OF TEXTILES, WITH PER CENT OF IMPORTS TO TOTAL CONSUMPTION: 1870 AND 1900.

	1900					1870					Per cent of imports to total consumption.	
	Value of domestic products.	Exports.[1]	Domestic consumption.	Imports for consumption.[1]	Total consumption.	Value of domestic products.	Exports.[1]	Domestic consumption.	Imports for consumption.[1]	Total consumption.	1900	1870
Total	$743,417,062	$25,556,057	$717,891,005	$82,214,010	$800,105,015	$388,957,663	$3,923,089	$385,034,574	$81,151,729	$466,186,303	10.3	17.4
Cotton manufactures	339,200,320	24,003,087	315,197,233	39,789,989	354,987,222	177,489,739	3,787,282	173,702,457	21,899,120	195,601,577	11.2	11.2
Wool manufactures	296,990,484	1,300,362	295,690,122	15,620,487	311,310,609	199,257,262	124,159	199,133,103	35,032,628	234,165,731	5.0	15.0
Silk manufactures	107,256,258	252,608	107,003,650	26,803,534	133,807,184	12,210,662	11,648	12,199,014	24,219,981	36,418,995	20.0	66.5

[1] Annual Reports United States Treasury Department on Commerce and Navigation of the United States, 1870 and 1900. These are foreign, and not duty-paid values.

The value now reported for hosiery and knit goods can not be divided between cotton and wool; but if it be added to the reported home production, the total value of the textiles consumed in the United States in 1900 is $895,587,581, and the percentage imported is but 9.18. It may also be mentioned that in recent years a great proportion of the articles classed as cotton goods imported consists of laces, embroideries, trimmings, edgings, and other merchandise of which these are the types, which are not strictly to be classified with the products of the spindle, the loom, and the knitting machine.

It is a matter of extreme difficulty to ascertain the exact standing of the United States as a producer of textiles. The statistics are collected in no other country with the care and thoroughness which characterize an American census. The figures presented by statisticians of recognized repute are necessarily estimates to a large extent; and the years for which the estimates are made do not coincide with the census years of this country, unless by accident. Nevertheless, the situation may be set forth in broad terms with much confidence, inasmuch as there are some facts having an official character which furnish trustworthy indications.

Taking first the cotton manufacture, there is the assistance of Government and commercial statistics showing the amount of cotton produced, imported, exported, and consequently the amount retained for consumption in each country. There is also the help afforded by close annual estimates by most experienced observers of the number of spindles in operation in every country of the world in which cotton is manufactured on a large scale. The following table, compiled from statistics gathered by Thomas Ellison, of Liverpool, the highest authority in the world on the subject of cotton, shows the consumption of cotton in Great Britain, on the continent of Europe, and in the United States, at various periods, namely, the average annual consumption in the five years ending with the American census years from 1830 to 1880, followed by the annual consumption in each of the years 1890 and 1900. The amounts are expressed in thousands of bales of a uniform weight of 400 pounds.

CONSUMPTION OF COTTON AT DECENNIAL PERIODS, 1830–1900.

	Great Britain, number of thousand bales.	Continent Europe, number of thousand bales.	United States, number of thousand bales.
Average for 5 years ending—			
1830	711	411	130
1840	1,156	629	255
1850	1,458	776	553
1860	2,265	1,490	813
1870	2,639	1,842	875
1880	2,924	2,455	1,543
Year 1890	4,140	4,277	[1]2,983
Year 1900	4,079	5,720	4,599

[1] Census figures, reduced to bales of 400 pounds. Cotton used in wool manufactures included.

One might hastily infer that the United States was, in the year 1900, the leading country of the world in the manufacture of cotton. The same inference might be drawn from the statistics collected by the New York Chronicle, which, in its Cotton Crop Supplement for 1900,[1] gives the weekly consumption for the preceding years as shown in the following table, in bales of 500 pounds each. The annual consumption (52 weeks) of bales of corresponding weight, and the number reduced to bales of 400 pounds, are added for purposes of comparison with the preceding table.

[1] September 8, 1900.

WORLD'S CONSUMPTION OF COTTON, 1900.

[New York Commercial Chronicle.]

	Weekly, number of 500-pound bales.	ANNUAL.	
		Number of 500-pound bales.	Equivalent 400-pound bales.
Total	262,295	13,639,340	17,049,175
Great Britain	[1]64,115	3,333,980	4,167,475
Continent	88,000	4,576,000	5,720,000
United States	74,148	3,855,696	4,819,620
East Indies	21,538	1,119,976	1,399,970
Japan	12,000	624,000	780,000
Canada	2,141	111,332	139,165
Mexico	353	18,356	22,945

[1] The amount reported in 1900, prior to the receipt of Mr. Ellison's report, was 67,654 bales weekly. In the Cotton Crop Supplement, September 7, 1901, the amount was changed to 64,115 bales weekly.

Although the amount consumed by the countries of the European continent exceeded that consumed in the United States, the consumption in this country greatly exceeded that of any one of those countries: France, Germany, Austria, or Russia.

It is, however, universally known that Great Britain is far in the lead in the cotton manufacture. The fact is brought out in the special report on the cotton industry, that an immense proportion of the spinning in the United States is coarse or medium yarns, whereas the average spinning on the other side of the Atlantic is much finer. A better test of the comparative standing is afforded by the number of spindles. The following table, like that showing the consumption of cotton, is made up from the figures compiled by Mr. Ellison, and are partly official and partly estimated:

COTTON SPINDLES IN THE WORLD AT VARIOUS PERIODS, IN THOUSANDS.

	1900	1897	1887	1877	1861
Great Britain	46,000	44,900	43,000	39,500	30,300
Continent of Europe	33,000	30,350	23,750	19,600	10,000
United States	19,008	16,800	13,500	10,000	5,000
India	4,400	4,000	2,400	1,230	338
Japan	1,500	970	.....	.....	.....
China	600	410	.....	.....	.....
Canada	640	560	.....	.....	.....
Mexico	460	450	.....	.....	.....

A more detailed statement of the spindles in the countries of the world in 1900 has been prepared for this report by the editor of the New York Commercial and Financial Chronicle. It is presented, together with another statement made by Mr. Hachiro H. Fukuhara, a Japanese, who has been investigating the cotton manufacture in Europe and America with a view to promoting the industry in his own country. The general correspondence of the two statements, compiled independently, is a strong point in favor of the accuracy of both. They show that this country stands next after Great Britain in the number of spindles, and that it operates more than twice as many spindles as Germany, which has the third rank.

NUMBER OF SPINDLES IN THE COUNTRIES OF THE WORLD, AS ASCERTAINED AT NEAREST AVAILABLE DATE TO 1900.

	New York Chronicle, number.	Mr. Fukuhara, number.
Total	103,383,386	103,050,677
United Kingdom	45,400,000	45,400,000
United States	18,590,515	18,100,000
Germany	[1] 7,155,500	7,884,000
Russia	[2] 6,090,889	6,000,000
France	[3] 5,039,000	5,300,000
India	4,945,783	5,002,473
Austria and Hungary	[3] 3,140,171	3,140,000
Spain	[4] 2,614,500	2,615,000
Switzerland	[1] 1,709,400	1,972,000
Italy	[2] 2,092,730	1,886,000
Japan	1,220,975	1,250,000
Poland	[5] 850,000	965,000
Belgium	[1] 880,800	900,000
China	600,000	560,048
Canada	640,000	500,000
Mexico	[2] 491,443	448,156
Sweden	[2] 360,000	360,000
Holland	[1] 269,680	350,000
Portugal	[3] 160,000	230,000
Norway	[4] 112,000	118,000
Greece	[6] 970,000	70,000
Roumania	[2] 40,000	.....
Smyrna	10,000	.....

[1] 1898. [2] 1899 [3] 1894 [4] 1896. [5] 1897. [6] 1895.

The materials for estimating the relative standing of different countries in the wool industry are less abundant and less trustworthy than those available for the cotton manufacture. There are no accurate returns, even of the consumption of wool, except in Great Britain and the United States; there is no common standard of machinery; and no return of the number of hands employed. The most recent figures, and they are merely careful and probably nearly correct estimates, are for the year 1894. They are compiled[1] from the trade circular of Helmuth Schwartze & Co., of London, who are recognized authority upon the production and consumption of wool throughout the world.

The estimate is that in the year 1894 the home production and the net importation of the United Kingdom made available for the consumption of that country aggregated 507,000,000 pounds of wool; for the Continent of Europe, 1,247,000,000 pounds; for North America, 458,000,000 pounds. The estimate of the same authority for the year 1900 gave the United Kingdom for home consumption 502,000,000 pounds. It is, perhaps, not far from the truth to assume that the consumption of five-sixths, possibly more, of the wool manufactured on the Continent of Europe of which commerce takes account is divided nearly equally among France, Germany, and Austria-Hungary. For this inference, reliance has to be placed upon statistics which are none too recent. Assuming, in order to make an estimate, that the consumption in 1892 was the same as in 1894, and that the home production of each country was the same in 1892 as in 1900, the result, stated in pounds of wool consumed, is as follows:

COUNTRIES.	Total, pounds.	Production, pounds.	Net import, pounds.
Total	1,227,500,000	217,500,000	1,010,000,000
France	457,610,000	103,610,000	354,000,000
Germany	383,090,000	49,590,000	333,500,000
Austria	386,800,000	64,300,000	322,500,000

NOTE.—The materials from which the foregoing statement is composed are to be found in the Wool Book, 1895, pages 79, 81, 82, and 85, and the Bulletin of the National Association of Wool Manufacturers for November, 1900, page 14.

[1] The Wool Book, Boston: 1895, page 64.

The use of wool in the manufactures of the United States, according to the present census, amounted to 394,369,523 pounds in the year 1900; somewhat less, it will be observed, than the amount above allowed for North America in the Helmuth-Schwartze estimate for the year 1894. Although the inference can not be put forth with much confidence, all the available facts seem to suggest that, judged by the standard of wool consumed—by no means a perfect test—the United States stands after Great Britain, the leading country, and France the second, and on a fairly even footing with Germany and Austria.

The report upon the silk manufacture gives a trustworthy exhibit of the position of the United States in that branch of the textile industry, in the following table:

VALUE OF SILK PRODUCTS OF EUROPE AND THE UNITED STATES: 1900.[1]

COUNTRIES.	Value of products.	Per cent of products.
Total	$395,000,000	100.0
France	122,000,000	30.9
United States	92,000,000	23.3
Germany	73,000,000	18.5
Switzerland	38,000,000	9.6
Russia (in Europe)	21,000,000	5.3
Austria	17,000,000	4.3
Great Britain	15,000,000	3.8
Italy	13,000,000	3.3
Spain and Portugal	4,000,000	1.0

[1] International Universal Exposition at Paris; Report of United States Commissioner Peck; Report on silk fabrics, contributed by Franklin Allen, jr., of the United States, in the silk section (Class 83). Government Printing Office, Washington, D. C., 1901, page 565.

It appears that in value of production the United States is surpassed by France alone, and reasons are given in the report for an opinion that the excess is swelled by some items that should not be reckoned to the credit of France. At the rate of progress made by the United States it seems probable that at the next enumeration it will take the first position among silk manufacturing nations, if it has not already (1902) done so. It may be remarked that value of production is a better test of the relative standing of nations in the case of silk than it is in the case of cotton, where so much depends upon the fineness of spinning, or than in the case of wool, where the difference is so wide in the value per pound of material used in the manufacture of carpets and of fine worsted cloth.

A general summary shows that the United States is second in the cotton industry, nearly tied for the third place in woolens, and second in silk. But the country so far exceeds any of its rivals, except Great Britain, in cotton, that the position as the second manufacturing nation in the world in textiles will be conceded to be beyond dispute. It is interesting, therefore, to inquire how the United States stands in comparison with the United Kingdom, which alone surpasses it in this respect. The only available test is the number of hands employed. The Annual Report for 1900 of the Chief Inspector of Factories and Workshops, published as a

"blue book," gives the number of employees in all the textile factories in the United Kingdom in 1899. The numbers are given herewith, and the corresponding numbers of employees in American textile factories in 1900 are given for purposes of comparison:

	United Kingdom, 1899, wage-earners, number.	United States, 1900, wage-earners, average number.
Total	1,010,162	631,675
Cotton	526,107	302,861
Wool, worsted, and shoddy	256,425	159,108
Silk	35,461	65,416
Hosiery	35,464	83,387
Flax, hemp, and jute	156,705	20,903

Only wage-earners are reported in the figures for the United States, and apparently none others are included in the British returns. So far as these facts are a safe basis for a conclusion, the importance of the textile industry as a whole in the United States is about three-fifths as great as the same industry in Great Britain. Were the flax, hemp, and jute manufactures, in which this country is greatly inferior, to be eliminated, the proportion would be nearly three-fourths.

A GENERAL SURVEY OF THE TEXTILE INDUSTRY.

Table 2, in continuation of that which was first presented at the Eleventh Census, exhibits the general condition of each branch of the textile manufacture, and of the industry as an entity, at decennial periods for the last half century.

TABLE 2.—COMPARATIVE SUMMARY, BY INDUSTRIES: 1850 TO 1900.

INDUSTRIES.	Year.	Number of establishments.	Capital.	SALARIED OFFICIALS, CLERKS, ETC.		WAGE-EARNERS.		Miscellaneous expenses.	Cost of materials used.	Value of products.
				Number.	Salaries.	Average number.	Total wages.			
Combined textiles	1900	4,312	$1,042,997,577	16,822	$23,289,162	661,451	$209,022,447	$63,122,916	$521,345,200	$931,494,566
Cotton manufacture:										
Cotton goods	1900	973	460,842,772	4,713	7,123,574	297,929	85,126,310	21,650,144	173,441,390	332,806,156
Cotton small wares	1900	82	6,397,385	189	226,625	4,932	1,563,442	462,534	3,110,137	6,394,164
Wool manufacture	1900	1,414	310,179,749	4,495	6,455,495	159,108	57,933,817	17,329,932	181 159,127	296,990,484
Silk manufacture	1900	483	81,082,201	2,657	3,134,352	65,416	20,982,194	10,264,208	62,406,665	107,256,258
Hosiery and knit goods	1900	921	81,860,604	2,809	3,124,798	83,387	24,358,627	6,599,865	51,071,859	95,482,566
Flax, hemp, and jute	1900	141	41,991,762	641	957,190	20,903	6,331,741	2,678,286	32,197,885	47,601,607
Dyeing and finishing textiles	1900	298	60,643,104	1,318	2,267,128	29,776	12,726,316	4,137,947	17,958,137	44,963,331
Combined textiles	1890	4,276	767,705,310	[1] 10,637	[1] 12,539,920	517,237	168,488,982	44,788,668	447,546,540	759,262,283
Cotton manufacture	1890	905	354,020,843	2,709	3,464,734	218,876	66,024,538	16,716,524	154,912,979	267,981,724
Wool manufacture	1890	1,693	245,886,743	3,652	4,057,695	154,271	54,339,775	15,622,263	167,233,987	270,527,511
Silk manufacture	1890	472	51,007,537	1,531	1,917,877	49,382	17,762,441	4,259,623	51,004,425	87,298,454
Hosiery and knit goods	1890	796	50 607,738	1,621	1,685,153	59,588	16,578,119	3,627,245	35,861,585	67,241,013
Flax, hemp, and jute	1890	162	27,731,649	458	609,170	15,519	4,872,389	1,431,932	26,148,344	37,313,021
Dyeing and finishing textiles	1890	248	38,450,890	666	805,291	19,601	8,911,720	3,131,081	12,385,220	28,900,560
Combined textiles	1880	4,018	412,721,496	[2]	[2]	[5] 384,251	105,059,666	[3]	302,709,894	532,673,488
Cotton manufacture[4]	1880	756	208,280,346			[5] 174,659	42,040,510		102,206,347	192,090,110
Wool manufacture	1880	2,330	143,512,278			132,672	40,687,612		149,160,600	238,085,686
Silk manufacture	1880	382	19,125,300			31,337	9,146,705		22,467,701	41,033,045
Hosiery and knit goods	1880	359	15,579,591			28,885	6,701,475		15,210,951	29,167,227
Dyeing and finishing textiles	1880	191	26,223,981			16,698	6,474,364		13,664,295	32,297,420
Combined textiles	1870	4,790	297,694,243	[2]	[2]	274,943	86,565,191	[3]	353,249,102	520,386,764
Cotton manufacture	1870	956	140,706,291			135,369	39,044,132		111,736,936	177,489,739
Wool manufacture	1870	3,208	121,451,059			105,071	35,928,150		124,318,792	199,257,262
Silk manufacture	1870	86	6,231,130			6,649	1,942,286		7,817,559	12,210,662
Hosiery and knit goods	1870	248	10,951,260			14,788	4,429,085		9,835,823	18,411,564
Dyeing and finishing textiles	1870	292	18,374,503			13,066	5,221,538		99,539,992	[6] 113,017,537
Combined textiles	1860	3,027	150,080,852	[2]	[2]	194,082	40,353,462	[3]	112,842,111	214,740,614
Cotton manufacture	1860	1,091	98,585,269			122,028	23,940,108		57,285,534	115,681,774
Wool manufacture	1860	1,476	38,814,422			50,419	11,699,630		43,447,048	73,454,000
Silk manufacture	1860	139	2,926,980			5,435	1,050,224		3,901,777	6,607,771
Hosiery and knit goods	1860	197	4,035,510			9,103	1,661,972		3,202,317	7,280,606
Dyeing and finishing textiles	1860	124	5,718,671			7,097	2,001,528		5,005,435	11,716,463
Combined textiles	1850	3,025	112,513,947	[2]	[2]	146,877	[2]	[3]	76,715,959	128,769,971
Cotton manufacture	1850	1,094	74,500,931			92,286	[7]		34,835,056	61,869,184
Wool manufacture	1850	1,675	31,971,631			45,438	[7]		28,831,583	48,608,779
Silk manufacture	1850	67	678,300			1,743	[7]		1,093,860	1,809,476
Hosiery and knit goods	1850	85	544,735			2,325	[7]		415,113	1,028,102
Dyeing and finishing textiles	1850	104	4,818,350			5,105	[7]		11,540,347	15,454,430

[1] Includes proprietors and firm members, with their salaries; number only reported in 1900, but not included in this table. (See detailed summary for each industry.)

[2] Not reported separately.

[3] Not reported.

[4] In addition to these data there were received at the census of 1880 returns for 249 mills, classed as "special mills," engaged in working raw cotton, waste, or cotton yarn into hosiery, webbing, tapes, and fancy fabrics, and mixed goods or other fabrics, which are not sold as specific manufactures of wool or cotton. These 249 establishments reported $11,224,448 capital, 12,928 employees, $3,573,909 wages, $2,358,385 cost of cotton consumed, $18,860,273 value of products, and should be considered in making comparisons. In 1890 this class of mills is reported under a number of different heads, although some of them may be included in the totals for the textile industries presented in the figures for 1890.

[5] Includes 2,115 officers and clerks, whose salaries were not reported.

[6] At the census of 1870 the value of the fabric itself was reported, whereas in all subsequent censuses merely the value added to such fabric by the process of dyeing and finishing is given.

[7] This item was not fully reported at the census of 1850.

Great reliance can not be placed upon any manufacturing census of the United States prior to that of 1870, at which time a scientific method was employed for the first time, and since which the returns have been more thorough, more carefully scanned, and more accurate. But inasmuch as the rule adopted for ascertaining the capital employed has been changed at each census, except for 1890 and 1900, the indication of increase can be taken as only approximately true. With this caution it appears that the capital invested in textile manufactures, omitting flax, hemp, and jute, has multiplied more than eight times in fifty years, and that the value of products is almost sevenfold that reported in 1850. Neither capital nor value of products is a fair test of the increase of the industry, the first item for the reason just given, and the value of products because there has been a progressive decrease in the cost of the fibers which constitute the raw material, and hence in the value of the pound of yarn or the yard of cloth. Another standard of comparison is afforded by the number of employees. Table 3 shows the percentage of increase in the average number of wage-earners and in the value of products.

TABLE 3.—PER CENT OF INCREASE IN AVERAGE NUMBER OF WAGE-EARNERS AND IN VALUE OF PRODUCTS: 1850 to 1900.[1]

PERIODS.	Per cent of increase in—	
	Average number of wage-earners.	Value of products.
1850 to 1900	336.1	586.4
1890 to 1900	27.7	22.4
1880 to 1890	30.6	35.5
1870 to 1880	39.8	2.4
1860 to 1870	41.7	142.3
1850 to 1860	32.1	66.8

[1] Not including flax, hemp, and jute.

It appears that the total increase in the number of wage-earners in the textile manufactures, excluding flax, hemp, and jute, for which comparative figures are not available, during the half century has been 336.1 per cent. The rate of increase has averaged 34.4 during each decennial period. The rate during the last decade was the smallest of those reported, but it was based upon a much larger aggregate, so that numerically the increase was greater than in the period 1880–1890. It is an interesting fact that the increase has in each decade, except that of 1850–1860, exceeded the general growth of population in spite of the enormous increase in the efficiency of machinery, which makes the productive power of one man's labor many times as great as it was at the beginning of the half century. In considering the statement of the percentage of increase in the value of products, full account should be taken of the disturbance of all estimates of this sort which include the period from 1860 to 1880. Prices were greatly inflated during the first half of the twenty-year period by the depreciation of the monetary standard, and also by the scarcity of cotton, which made the price exceedingly high. During the last half of the period prices gradually declined, owing to the restoration of normal conditions in the cotton market and the return to a gold basis.

NUMBER OF ESTABLISHMENTS.

The number of establishments engaged in all the textile industries, except flax, hemp, and jute, has increased since 1850 from 3,025 to 4,171, or 37.9 per cent. The number has shown a positive decrease since 1870. The gross number at the last 4 censuses has been 4,790, 4,018, 4,114, and 4,171, respectively. Yet the number of silk factories has increased largely, and there has been a great development of the cotton industry in the South, involving the installation of hundreds of new establishments. The decrease has mostly occurred in the number of establishments manufacturing wool. Nevertheless, a somewhat similar process is going on in all branches of the industry, an abandonment and final closing of small establishments and a consolidation akin to that which is taking place in all other industries.

This tendency is marked, to a certain extent, in the case of cotton by the very extensive building of new mills in the Southern states. It is fully apparent in the case of wool for a reason which will be apparent to all persons who are aware of the difference in the conditions under which the two industries are conducted. It will be seen that the average capital reported by the 973 cotton manufacturing establishments is more than $473,000; the average of those engaged in the manufacture of wool is less than $220,000. Ten years ago the average capital in the latter industry was less than $150,000. Most cotton factories are owned and operated by corporations; a large number of woolen factories are owned by individuals or firms, some of which are small producers, chiefly for local consumption. The tendency of textile manufactures both to concentrate and to group themselves in favorable regions is most marked, and is likely to be more apparent as time passes.

THE GENERAL GROWTH IN TWENTY YEARS.

Table 4 presents a comparative summary of the leading facts relating to the industry as a whole, not including flax, hemp, and jute, in 1880, 1890, and 1900, with the per cent of increase for each decade.

TABLE 4.—COMPARATIVE SUMMARY, NOT INCLUDING FLAX, HEMP, AND JUTE, 1880 TO 1900, WITH PER CENT OF INCREASE FOR EACH DECADE.

	DATE OF CENSUS.			PER CENT OF INCREASE.	
	1900	1890	1880	1890 to 1900	1880 to 1890
Number of establishments	4,171	4,114	4,018	1.4	2.4
Capital	$1,001,005,815	$739,973,661	$412,721,496	35.3	79.3
Salaried officials, clerks, etc., number	16,181	[1] 10,179	[2]	59.0	.....
Salaries	$22,331,972	[1] $11,930,750	[2]	87.2	.....
Wage-earners, average number	640,548	501,718	[3] 384,251	27.7	30.6
Total wages	$202,690,706	$163,616,593	$105,050,666	23.9	55.8
Men, 16 years and over	288,871	216,345	159,382	33.5	35.7
Wages	$114,959,158	$91,038,323	[2]	26.3	.....
Women, 16 years and over	283,638	243,589	169,806	16.4	43.5
Wages	$78,084,564	$66,644,785	[2]	17.2	.....
Children, under 16 years	68,039	41,784	55,063	62.8	[4] 24.1
Wages	$9,646,984	$5,933,485	[2]	62.6	.....
Miscellaneous expenses	$60,444,630	$43,356,736	[5]	39.4	.....
Cost of materials used	$489,147,315	$421,398,196	$302,709,894	16.1	39.2
Value of products	$883,892,959	$721,949,262	$532,673,488	22.4	35.5

[1] Includes proprietors and firm members, with their salaries; number only reported in 1900, but not included in this table. (See detailed summary for each industry.)
[2] Not reported separately.
[3] Includes 2,115 officers and clerks whose salaries are not reported.
[4] Decrease.
[5] Not reported.

The comparison of all the items in combination gives a better measure of growth than can be found in any single item of the statement. It will be seen that as to all the items which were reported in the enumeration of 1880 there was an increase in the ensuing decade, with the single exception of children employed. The decrease in this item was due to a combined legislative and social movement in the Northern states to eliminate child labor as far as practicable. For the decade from 1890 to 1900 there was an increase in every item, ranging in amounts from 1.4 per cent in the number of establishments to 87.2 per cent in the salaries of office clerks, etc. It is scarcely necessary to say that the increase in salaried employees is rather apparent than real, and is due to the transfer to this item of superintendents, overseers, etc., who were reported in 1890 with wage-earners. The next largest increase is that in the number of children employed, 62.8 per cent, and of their wages, 62.6 per cent. This reversal of the movement previously noted was a consequence of the immense increase of cotton manufacturing in the South, where it was necessary to enlist all the labor procurable.

Neither of the items showing a minimum or a maximum of increase is of much weight in estimating the growth of the industry, but it will be seen that the reported increase of capital, 35.3 per cent; of wage-earners, 27.7 per cent; of wages, 23.9 per cent; and of miscellaneous expenses, 39.4 per cent, are sufficiently uniform to give a fair indication of the progress that has been made. The fact that the cost of materials has increased only 16.1 per cent, and the value of products only 22.4 per cent, is explainable by the large decrease in the average price of the raw materials used, which is reflected in the value of products. The quantity of product shows an increase corresponding to that of the other items mentioned.

CAPITAL INVESTED.

Table 5 presents a summary of the capital invested in the several branches of the textile industry, 1840 to 1900, inclusive.

TABLE 5.—COMPARATIVE SUMMARY OF CAPITAL: 1840 TO 1900.

DATE OF CENSUS.	Total.	Cotton manufacture.[1]	Wool manufacture.[2]	Silk manufacture.	Hosiery and knit goods	Flax, hemp, and jute [3]	Dyeing and finishing textiles
1900	$1,042,997,577	$467,240,157	$310,179,749	$81,082,201	$81,860,604	$41,991,762	$60,643,104
1890	767,705,310	354,020,843	245,886,743	51,007,537	50,607,738	27,731,649	38,450,800
1880	412,721,496	208,280,346	143,512,278	19,125,300	15,579,591	.....	26,223,981
1870	297,694,243	140,706,291	121,451,059	6,231,130	10,931,260	.....	18,374,503
1860	150,080,852	98,585,269	38,814,422	2,926,980	4,035,510	.....	5,718,671
1850	112,513,947	74,500,931	31,971,631	678,300	544,735	.....	4,818,350
1840	66,867,483	51,102,359	15,765,124	.....	[4]	.....	.....

[1] Includes cotton goods and cotton small wares.
[2] Includes worsted goods; woolen goods; carpets and rugs, other than rag; felt goods, and wool hats.
[3] Includes cordage and twine; jute and jute goods, and linen goods; also two establishments classified in 1890 as "linen thread."
[4] Not reported separately.

While the method of ascertaining the capital has been changed at nearly every census the statement is nevertheless interesting. The successive changes have in general had the result of including more and more of the actual capital employed; that is to say, at the earlier censuses the capital stated was merely the nominal capital of corporations or the estimated capital of individuals and firms. The method pursued at the censuses of 1890 and 1900 has been to sum the value of plant and to include also such items as stock in process, bills receivable, etc., thus including in the capital the accumulation which has been invested in the business and the capital of others than the owners which has been borrowed and practically invested in the manufacture. In this way the reported capital shows a much larger increase than would have been exhibited if the original method had been followed.

It will be seen that the largest amount of capital was, at every census, that invested in cotton manufacture. At the beginning of the period, 1840, it was more than three times that invested in the wool manufacture, and at the census of 1900 it was still more than 50 per cent greater than that of the wool manufacture. The actual increase, however, has been more than $400,000,000, against a little less than $300,000,000 in wool. The capital invested in wool in 1900 was almost twenty times that reported in 1840. The growth of the silk manufacture and that of hosiery and knit goods, estimated by their capital, were almost the same from 1850 to 1900, and the rate of growth of each from decade to decade has been also quite uniform. Flax, hemp, and jute manufactures were first reported separately in 1890, and during the last decade increased about 50 per cent. The dyeing and finishing industry also shows a large growth during each ten-year period.

COST OF MATERIALS AND VALUE OF PRODUCTS.

Tables 6 and 7 should be considered together. Table 6 shows the cost of materials and value of products for each branch of the industry in 1890 and 1900, and also, for each census, the cost of materials per $100 of products. Table 7 shows the value of products for each branch of the industry from the earliest period for which the foundation for a reasonable estimate exists.

TABLE 6.—COMPARATIVE SUMMARY, COST OF MATERIALS, VALUE OF PRODUCTS, AND COST OF MATERIALS PER $100 OF PRODUCTS: 1890 AND 1900.

INDUSTRIES.	Year.	Cost of materials used.	Value of products.	Cost of materials per $100 of products.
Cotton manufacture[1]	1900	$176,551,527	$339,200,320	$52.05
	1890	154,912,979	267,981,724	57.81
Wool manufacture[2]	1900	181,159,127	296,990,484	61.00
	1890	167,233,987	270,527,511	61.82
Silk manufacture	1900	62,406,665	107,256,258	58.18
	1890	51,004,425	87,298,454	58.43
Hosiery and knit goods	1900	51,071,859	95,482,566	53.49
	1890	35,861,585	67,241,013	53.33
Flax, hemp, and jute[3]	1900	32,197,885	47,601,607	67.64
	1890	26,148,344	37,313,021	70.08
Dyeing and finishing textiles	1900	17,958,137	44,963,331	39.94
	1890	12,385,220	28,900,560	42.85

[1] Includes cotton goods and cotton small wares.
[2] Includes worsted goods; woolen goods; carpets and rugs, other than rag; felt goods; and wool hats.
[3] Includes cordage and twine; jute and jute goods; and linen goods; also 2 establishments classified in 1890 as "linen thread."

TABLE 7.—COMPARATIVE SUMMARY, VALUE OF PRODUCTS: 1810 TO 1900.

DATE OF CENSUS.	Total.	Cotton manufacture.[1]	Wool manufacture.[2]	Silk manufacture.	Hosiery and knit goods.	Flax, hemp, and jute.[3]	Dyeing and finishing textiles.
1900	$931,494,556	$339,200,320	$296,990,484	$107,256,258	$95,482,566	$47,601,607	$44,963,331
1890	759,262,283	267,981,724	270,527,511	87,298,454	67,241,013	37,313,021	28,900,560
1880	532,673,488	192,090,110	238,085,686	41,033,045	29,167,227	.....	32,297,420
1870	520,386,764	177,489,739	199,257,262	12,210,662	18,411,564	.....	[4]113,017,537
1860	214,740,614	115,681,774	73,454,000	6,607,771	7,280,606	.....	11,716,463
1850	128,769,971	61,869,184	48,608,779	1,809,476	1,028,102	.....	15,454,430
1840	67,047,452	46,350,453	20,696,999	.....	.....	.....	.....
1830	37,062,981	22,534,815	14,528,166	.....	.....	.....	.....
1820	9,247,225	4,834,157	4,413,068	.....	.....	.....	.....
1810	51,685,785	[5]26,076,997	[6]25,608,788	.....	.....	.....	.....

[1] Includes cotton goods and cotton small wares.
[2] Includes worsted goods; woolen goods; carpets and rugs, other than rag; felt goods; and wool hats.
[3] Includes cordage and twine; jute and jute goods; linen goods; and two establishments in 1890 classified as "linen thread."
[4] At the census of 1870 the value of the fabric itself was reported, whereas in all subsequent censuses merely the value added to such fabric by the process of dyeing and finishing is given.
[5] Includes manufactures of cotton and flax in families and otherwise.
[6] Includes manufactures of wool in families and otherwise.

The comparison between cost of materials and value of products reflects the decline already noted in the cost of the several fibers used in the manufacture. The decline is most marked in the case of cotton, where the cost of materials has declined $5.76 in $100 of product, whereas in wool and silk the decline has been fractional. There are influences which serve to make the present cost of materials more uniform than would be expected from the large difference in the price per pound of cotton, wool, and silk. Thus, the percentage of amount employed in the wool manufacture is much greater than in cotton, and the higher relative cost of labor due to that fact neutralizes, to a certain extent, the greater cost of wool per pound. On the other hand, the cost of materials in flax, hemp, and jute—the most inexpensive materials entering into the textile industry—shows a greater percentage than either of the other branches, owing to the small amount of labor required for handling a great quantity of material.

The table which shows the value of product during

the Nineteenth century makes use of one of the two only standards that are possible for estimating the relative importance of the several industries at the close of each decade. The figures given for 1810, 1820, 1830, and 1840 are taken from the report made to James Guthrie, Secretary of the Treasury in 1855, the most reliable authority for these years. The cotton manufacture was begun in Pawtucket, R. I., in 1791. Prior to the War of 1812 there was no mill in the country which carried on both spinning and weaving under the same management, but the number of spinning mills was large.

No statement of the value of the wool manufacture has been made prior to the year 1820. It will be seen that at that time the cotton manufacture was more than five times as great in value, according to the estimate, as the wool. In 1830 wool was more than half as important as cotton. From that time there was a steady increase of both industries, which has been continued ever since. Cotton greatly outranked wool in 1860, but the interruption of the cotton manufacture which resulted from the Civil War gave wool an advantage, which is to be seen in the returns for 1870 and 1880, and to a very slight extent in 1890; but at the present census cotton has again resumed the leadership which before the Civil War it held so long.

The silk manufacture first appears in 1850, and at the same time the hosiery and knit goods industry was reported separately from the wool manufacture. Both of these industries have grown enormously, and at the present time the value of the silk manufacture is more than one-third that of wool, and nearly one-third that of cotton; and knit goods lag but little in the rear.

The flax, hemp, and jute industry has always existed, and no doubt at the beginning of the Government under the Constitution the production of cordage far exceeded in value that of any other branch of the manufacture now classed as textile. It has assumed great importance in modern industry in consequence of the immense demand for binding twine.

The increase of dyeing and finishing has, of course, kept pace with the other textile industries of which it is the necessary concomitant. It should be noted that the amount reported as the value of dyeing and finishing in 1870 represents the value of the finished product. For every other enumeration it is simply the value added to the product of other establishments.

CONSUMPTION OF TEXTILE FIBERS.

Table 8 presents a statement of the consumption of textile fibers, in pounds, from 1840 to 1900, and furnishes a measure of the relative growth of the cotton, wool, and silk industries.

TABLE 8.—CONSUMPTION OF TEXTILE FIBERS: 1840 TO 1900.

YEARS.	Cotton, pounds.[1]	Wool, pounds.[2]	Silk, pounds.
1900	1,910,509,193	412,323,430	9,760,770
1890	1,193,374,641	372,797,413	6,376,881
1880	798,344,838	296,192,229	2,690,482
1870	430,781,937	219,970,174	684,488
1860	443,845,378	98,379,785	462,965
1850	288,558,000	70,862,829	.....
1840	126,000,000	.....	.....

[1] Includes cotton consumed in establishments classed as cotton goods, cotton small wares; woolen goods, worsted goods, carpets and rugs, other than rag; felt goods; wool hats; and hosiery and knit goods.
[2] Includes wool consumed in establishments classed as woolen goods; worsted goods, carpets and rugs, other than rag; felt goods; wool hats; and hosiery and knit goods.

The indication of Table 8 is substantially the same as that of the table showing the value of products. It will be seen that whereas there was a large increase in the amount of wool used at each enumeration, there was a decrease of cotton from 1860 to 1870, and that during the twenty-year period from 1860 to 1880 the amount of wool used increased threefold, whereas the amount of cotton did not double itself. During the last decade the increase of wool has been little more than 10 per cent, whereas the increase of cotton has been more than 60 per cent.

EMPLOYEES AND THEIR WAGES.

Table 9 presents the total number of wage-earners in each branch of the industry, classified as men, women, and children, and the wages earned during the census year 1900.

TABLE 9.—AVERAGE NUMBER OF WAGE-EARNERS AND TOTAL WAGES, BY INDUSTRIES: 1900.

INDUSTRIES.	TOTAL.		MEN, 16 YEARS AND OVER.		WOMEN, 16 YEARS AND OVER.		CHILDREN, UNDER 16 YEARS.	
	Average number.	Wages.	Average number.	Wages.	Average number.	Wages.	Average number.	Wages.
Total	661,451	$209,022,447	298,867	$118,783,713	292,286	$80,258,716	70,298	$9,980,018
Cotton manufacture:								
Cotton goods	297,929	85,126,310	134,354	46,923,365	123,709	32,917,933	39,866	5,285,012
Cotton small wares	1,932	1,563,442	1,367	671,516	3,173	828,732	392	63,194
Wool manufacture[1]	159,108	57,933,817	88,371	36,412,872	64,141	19,549,423	11,596	1,971,522
Silk manufacture	65,416	20,982,194	24,206	10,699,483	34,797	9,377,696	6,413	905,015
Hosiery and knit goods	83,387	24,358,627	21,154	8,890,728	53,565	14,243,808	8,668	1,224,091
Flax, hemp, and jute[2]	20,903	6,331,741	9,996	3,824,555	8,648	2,174,152	2,259	333,034
Dyeing and finishing textiles	29,776	12,726,316	24,419	11,361,194	4,253	1,165,972	1,104	198,150

[1] Includes worsted goods; woolen goods; carpets and rugs, other than rag; felt goods; and wool hats.
[2] Includes cordage and twine; jute and jute goods; and linen goods.

The striking fact appears that the average number of wage-earners employed during the entire year in the manufacture and finishing of all the cloth necessary for a population of over 75,000,000 was but 640,548, the number employed in flax, hemp, and jute being deducted from the total shown in this table. It is a remarkable illustration of the power of machinery that much less than one person in a hundred was required to furnish the materials for the clothing of the American people. The number of persons employed in the cotton manufacture, including cotton small wares, was almost twice as great as that in the wool manufacture, which again was nearly three times the number of persons employed in silk mills.

Table 10 shows the average number of wage-earners, men, women, and children, in the several branches of the industry and the percentage that each is of the total for 1880, 1890, and 1900.

TABLE 10.—AVERAGE NUMBER OF WAGE-EARNERS, AND PROPORTION OF MEN, WOMEN, AND CHILDREN: 1880 TO 1900.

	Year.	AVERAGE NUMBER OF WAGE-EARNERS.				PER CENT OF TOTAL.		
		Total.	Men, 16 years and over.	Women, 16 years and over.	Children, under 16 years.	Men.	Women.	Children.
Total	1900	661,451	298,867	292,286	70,298	45.2	44.2	10.6
	1890	517,237	223,712	250,512	43,013	43.3	48.4	8.3
	[1]1880	384,251	159,382	169,806	55,063	41.5	44.2	14.3
Cotton manufacture	1900	302,867	135,721	126,882	40,258	44.8	41.9	13.3
	1890	218,876	88,837	106,607	23,432	40.6	48.7	10.7
	[1]1880	174,659	61,760	84,558	28,341	35.4	48.4	16.2
Wool manufacture	1900	159,108	83,371	64,141	11,596	52.4	40.3	7.3
	1890	154,271	78,550	64,944	10,777	50.9	42.1	7.0
	1880	132,672	67,942	49,107	15,623	51.2	37.0	11.8
Silk manufacture	1900	65,416	24,206	34,797	6,413	37.0	53.2	9.8
	1890	49,382	17,602	28,914	2,866	35.6	58.6	5.8
	1880	31,337	9,375	16,396	5,566	29.9	52.3	17.8
Hosiery and knit goods	1900	83,387	21,154	53,565	8,668	25.4	64.2	10.4
	1890	59,588	14,846	40,826	3,916	24.9	68.5	6.6
	1880	28,885	7,517	17,707	3,661	26.0	61.3	12.7
Flax, hemp, and jute	1900	20,903	9,996	8,648	2,259	47.8	41.4	10.8
	1890	15,519	7,367	6,923	1,229	47.5	44.6	7.9
Dyeing and finishing textiles	1900	29,776	24,419	4,253	1,104	82.0	14.3	3.7
	1890	19,601	16,510	2,298	793	84.2	11.7	4.1
	1880	16,698	12,788	2,038	1,872	76.6	12.2	11.2

[1] Includes 2,115 officers and clerks whose salaries are not reported.

Table 10 shows that the total number of wage-earners increased from 1880 to 1890, and from 1890 to 1900, in each case, by about 140,000. To this number the wool industry contributed but slightly (the total addition in twenty years being only 26,436), whereas the number of wage-earners in cotton, in silk, in hosiery, in flax, hemp, and jute, and in dyeing and finishing all increased largely. The increase in the number of men during the past decade was 75,155; of women, 41,774; of children, 27,285. The preponderance of increase in the case of men is shown most clearly in the columns showing the percentage. In the industry as a whole the number of men in a hundred employed has increased from 41.5 in 1880 to 43.3 in 1890 and to 45.2 in 1900. The proportion of women showed an increase from 1880 to 1890 of from 44.2 to 48.4, but during the past decade has declined to 44.2. The proportion of children had decreased in the twenty years from 14.3 to 10.6, but shows an increase during the last decade, owing to circumstances which have already been mentioned.

These several movements affecting the proportionate number of men, women, and children are seen most plainly in the case of the cotton manufacture, where the proportion of men has increased in twenty years from 34.4 to 44.8, and during the same period the proportion of women has decreased from 48.4 to 41.9. The causes of the shifting of employment from women to men is discussed in the report upon the cotton manufacture. So far as the other industries are concerned, there has been little change, but that which has taken place corresponds, so far as men are concerned, to the changes just noted, but a considerable decrease in the number of children has, in some cases, resulted in an increase in the number of women employed.

GEOGRAPHIC DISTRIBUTION.

Table 11 presents a comparative summary of the industry by states arranged geographically, exclusive of flax, hemp, and jute for 1880, 1890, and 1900.

TABLE 11.—COMPARATIVE SUMMARY, NOT INCLUDING FLAX, HEMP, AND JUTE, BY STATES ARRANGED GEOGRAPHICALLY: 1880 TO 1900.

STATES.	Year.	Number of establishments.	Capital.	SALARIED OFFICIALS, CLERKS, ETC.		WAGE-EARNERS.		Miscellaneous expenses.	Cost of materials used.	Value of products.
				Number.	Salaries.	Average number.	Total wages.			
United States	1900	4,171	$1,001,005,815	16,181	$22,331,972	640,548	$202,690,706	$60,444,630	$489,147,315	$883,892,959
	1890	4,114	739,973,661	[1]10,179	[1]11,930,750	501,718	163,616,593	43,356,736	421,398,196	721,949,262
	1880	4,018	412,721,496	[2]	[2]	[3]384,251	105,050,666	[4]	302,709,894	532,673,488
New England states	1900	1,124	524,899,362	5,633	9,527,370	286,469	101,934,256	26,403,681	222,297,451	412,875,975
	1890	1,210	426,365,388	3,524	4,915,773	256,018	86,973,178	24,501,029	211,974,959	365,613,324
	1880	1,214	261,561,147	.....	.....	217,674	60,611,202	.....	172,223,778	310,542,352
Maine	1900	101	36,720,083	350	555,963	21,938	7,369,946	2,358,238	15,524,745	29,394,372
	1890	107	30,990,097	217	302,438	19,794	6,277,442	1,867,550	14,495,290	24,911,165
	1880	126	19,932,406	.....	.....	15,869	4,204,778	.....	12,148,526	21,470,567
New Hampshire	1900	97	44,107,098	382	622,437	29,533	10,088,051	2,264,958	20,675,482	37,495,180
	1890	118	43,891,412	330	419,199	29,243	9,624,933	2,339,287	22,225,159	37,256,364
	1880	126	31,247,024	.....	.....	24,743	6,904,069	.....	18,809 037	32,757,358
Vermont	1900	43	6,724,920	109	147,128	3,613	1,253,388	282,863	3,378,931	5,657,217
	1890	45	5,491,250	70	72,438	2,970	1,043,588	301,466	2,626,232	4,744,326
	1880	58	3,750,257	.....	.....	3,204	807,048	.....	2,881,935	4,671,041
Massachusetts	1900	483	273,562,835	2,713	4,744,037	149,039	53,819,143	13,072,020	113,354,739	213,612,791
	1890	533	215,254,813	1,711	2,498,825	125,108	43,091,382	12,930,047	107,465,624	184,938,074
	1880	496	120,443,376	.....	.....	106,743	29,801,616	.....	84,228,717	152,988,522
Rhode Island	1900	210	97,444,185	1,116	2,034,498	49,877	17,863,957	5,222,431	42,458,004	77,988,396
	1890	204	70,699,470	645	821,685	47,426	16,013,599	4,260,785	37,911,493	67,005,615
	1880	194	46,989,447	.....	.....	36,622	10,127,287	.....	27,708,649	51,383,569
Connecticut	1900	190	66,340,241	963	1,423,307	32,469	11,539,771	3,203,171	26,910,550	48,728,019
	1890	203	60,038,346	551	801,188	31,477	10,922,234	2,801,894	27,251,161	46,757,780
	1880	214	39,198,637	.....	.....	30,493	8,766,404	.....	26,446,914	47,271,300
Middle states	1900	1,969	307,765,675	7,155	8,924,195	221,944	74,632,681	26,481,180	187,031,904	334,247,580
	1890	1,914	222,402,855	4,467	5,076,869	180,669	62,435,733	14,352,458	161,124,539	279,576,396
	1880	1,540	115,483,359	.....	.....	132,884	38,013,381	.....	106,328,536	183,443,725
New York	1900	528	93,392,958	2,070	2,707,559	64,734	22,606,600	6,683,087	50,273,612	93,819,518
	1890	615	75,881,672	1,459	1,829,231	60,924	20,834,522	4,840,584	47,621,495	86,171,293
	1880	480	42,022,987	.....	.....	45,153	12,652,423	.....	30,610,901	56,191,417
New Jersey	1900	323	76,183,937	1,740	2,478,193	46,985	17,188,137	7,309,634	38,795,102	72,933,823
	1890	240	43,321,016	778	954,171	33,934	12,750,224	2,952,104	29,682,210	52,831,023
	1880	186	16,028,770	.....	.....	24,111	7,652,833	.....	17,456,679	31,865,348
Pennsylvania	1900	1,076	126,346,788	3,114	3,426,774	101,845	32,624,316	11,783,429	92,301,856	157,333,201
	1890	1,010	92,686,227	2,104	2,147,210	79,277	27,089,420	6,052,430	78,869,158	132,367,499
	1880	822	51,238,747	.....	.....	58,005	16,560,274	.....	53,999,549	88,594,143
Delaware	1900	16	2,174,398	81	113,896	1,882	621,729	175,615	1,377,168	2,592,201
	1890	11	2,555,233	37	37,948	1,506	508,169	122,690	1,007,270	1,821,278
	1880	13	1,227,129	.....	.....	1,058	301,231	.....	975,490	1,536,260
Maryland	1900	26	9,667,694	150	197,773	6,498	1,591,899	529,415	4,284,266	7,568,887
	1890	38	7,958,707	89	108,309	6,028	1,253,398	384,650	3,944,406	6,385,303
	1880	39	4,965,726	.....	.....	4,557	846,620	.....	3,285,917	6,256,557
Southern states	1900	702	137,172,561	2,222	2,465,069	109,561	19,858,949	5,488,519	63,624,678	107,318,831
	1890	486	62,623,729	1,118	960,968	43,650	8,810,088	2,691,420	32,624,416	49,729,674
	1880	613	20,413,414	.....	.....	19,409	3,254,936	.....	12,781,692	20,381,689
Virginia	1900	53	6,759,667	121	136,789	5,611	1,272,256	292,451	3,322,334	5,762,329
	1890	47	4,089,511	80	59,765	2,870	568,394	177,750	1,998,555	2,964,171
	1880	56	1,646,850	.....	.....	1,477	241,509	.....	1,023,471	1,618,930
West Virginia	1900	38	1,212,971	31	32,830	924	211,782	97,913	584,417	987,622
	1890	33	408,881	37	13,282	291	66,098	27,708	225,961	395,700
	1880	57	328,170	.....	.....	365	51,361	.....	290,343	413,586
North Carolina	1900	225	34,458,422	759	652,124	32,367	5,492,194	1,099,890	18,290,225	29,996,558
	1890	124	11,195,122	260	186,825	9,016	1,560,904	442,056	6,553,635	10,053,264
	1880	98	3,058,900	.....	.....	3,528	462,854	.....	1,719,352	2,857,642
South Carolina	1900	88	39,767,684	448	564,863	30,636	5,162,931	1,556,500	17,602,500	30,274,086
	1890	35	11,144,233	121	136,080	8,072	1,510,609	628,236	6,820,132	9,801,956
	1880	25	2,784,000	.....	.....	2,066	382,017	.....	1,827,755	2,919,844
Georgia	1900	98	25,606,170	397	491,604	20,117	3,872,313	1,145,149	12,207,425	20,266,712
	[5]1890	72	18,171,990	244	216,276	10,866	2,274,945	751,515	8,038,042	12,450,098
	[5]1880	74	6,543,390	.....	.....	6,529	1,166,654	.....	4,203,557	6,749,784
Kentucky	1900	46	3,951,418	56	84,323	2,335	515,780	175,392	2,030,684	3,274,519
	1890	49	4,142,815	109	111,694	2,767	692,400	246,643	2,300,959	3,785,436
	1880	103	1,255,750	.....	.....	1,181	231,755	.....	1,107,523	1,689,694
Tennessee	1900	72	6,384,194	123	137,337	4,251	790,031	239,289	2,266,543	3,907,279
	1890	69	4,322,336	121	99,485	3,051	635,610	230,116	2,525,198	3,724,138
	1880	122	1,564,264	.....	.....	1,446	228,134	.....	976,815	1,495,441
Alabama	1900	45	11,944,398	172	211,251	8,592	1,526,759	530,323	4,978,680	8,414,020
	1890	22	2,965,713	55	47,318	2,510	467,818	158,734	1,573,938	2,398,646
	1880	30	1,275,400	.....	.....	1,508	243,035	.....	833,072	1,291,764

[1] Includes proprietors and firm members, with their salaries; number only reported in 1900, but not included in this table. (See detailed summary for each industry.)
[2] Not reported separately.
[3] Includes 2,115 officers and clerks whose salaries were not reported.
[4] Not reported.
[5] Includes the reports from 1 establishment in Florida not reported separately.

TABLE 11.—COMPARATIVE SUMMARY, NOT INCLUDING FLAX, HEMP, AND JUTE, BY STATES ARRANGED GEOGRAPHICALLY: 1880 TO 1900—Continued.

STATES.	Year.	Number of establishments.	Capital.	SALARIED OFFICIALS, CLERKS, ETC.		WAGE-EARNERS.		Miscellaneous expenses.	Cost of materials used.	Value of products.
				Number.	Salaries.	Average number.	Total wages.			
Southern states—Continued.										
Mississippi	1900	11	$2,538,499	55	$72,418	2,010	$400,188	$135,684	$884,160	$1,670,153
	1890	16	3,607,198	43	38,264	2,223	558,987	75,676	1,380,009	2,257,583
	1880	16	1,453,640	.....	.....	940	186,314	.....	548,795	978,698
Arkansas	1900	15	293,353	11	7,428	198	36,290	4,985	111,198	199,471
	1890	8	164,236	12	5,250	103	15,856	8,775	46,557	71,913
	1880	27	160,550	.....	.....	154	20,565	.....	119,277	177,430
Louisiana	1900	3	1,741,688	18	26,941	1,335	282,536	79,887	584,324	1,162,752
	1890	6	1,516,660	16	22,574	1,237	267,468	15,650	737,212	1,126,751
	1880	2	195,000	.....	.....	108	12,572	.....	72,470	86,776
Texas	1900	8	2,514,097	31	47,151	1,125	295,889	131,056	761,888	1,403,330
	1890	5	895,034	20	24,155	644	190,999	28,561	424,218	700,018
	1880	3	147,500	.....	.....	107	28,166	.....	59,262	102,100
Western states	1900	376	31,168,217	1,171	1,415,348	22,634	6,264,820	2,071,250	16,193,282	29,450,573
	1890	504	28,581,689	1,070	977,140	21,381	5,397,594	1,811,829	15,674,282	27,029,868
	1880	651	15,263,576	.....	.....	14,284	3,171,147	.....	11,375,888	18,305,722
Ohio	1900	67	4,019,267	156	165,297	2,834	796,276	364,752	2,690,483	4,828,889
	1890	125	4,820,526	210	189,614	3,760	940,904	314,894	3,233,787	5,437,483
	1880	163	2,323,340	.....	.....	2,839	511,923	.....	1,780,099	3,032,669
Michigan	1900	51	3,652,060	243	225,338	3,563	873,902	340,247	2,850,219	4,878,984
	1890	44	1,691,461	84	64,898	1,551	366,098	119,060	1,110,018	1,964,974
	1880	51	726,189	.....	.....	1,397	185,364	.....	624,241	928,766
Indiana	1900	35	6,553,302	197	316,512	4,672	1,393,935	323,925	2,949,048	5,561,460
	1890	61	5,431,065	151	139,884	4,283	1,010,179	379,881	3,208,276	5,214,211
	1880	95	3,413,105	.....	.....	2,784	662,310	.....	2,587,954	4,074,576
Wisconsin	1900	66	5,440,759	197	244,319	4,135	998,616	365,213	2,516,810	4,667,294
	1890	60	4,603,613	137	145,450	3,747	807,483	279,328	2,399,217	4,100,201
	1880	53	1,559,964	.....	.....	1,146	285,566	.....	1,096,474	1,827,275
Illinois	1900	37	4,345,696	148	211,505	3,361	961,332	294,943	2,205,394	4,087,369
	1890	75	4,119,495	201	202,330	3,871	1,113,005	234,455	2,430,564	4,666,115
	1880	85	1,825,203	.....	.....	2,337	555,209	.....	1,937,336	2,980,116
Minnesota	1900	27	1,246,829	41	50,107	593	168,251	67,648	469,667	906,904
	1890	25	815,144	36	35,421	439	135,282	70,917	398,300	730,458
	1880	15	203,500	.....	.....	263	55,327	.....	190,867	303,378
Iowa	1900	14	620,164	38	29,321	366	82,825	24,722	213,769	386,056
	1890	20	896,741	45	35,470	494	146,170	53,069	629,832	899,918
	1880	37	555,700	.....	.....	505	118,252	.....	437,301	682,812
Missouri	1900	29	702,309	25	28,628	441	112,521	27,472	325,785	568,028
	1890	45	896,020	71	41,052	733	163,215	38,608	452,068	798,736
	1880	109	1,665,550	.....	.....	1,350	235,107	.....	1,105,497	1,563,641
Kansas	[1]1900	.....	.....	.....	.....	.....	.....	.....	.....	.....
	[1]1890	.....	.....	.....	.....	.....	.....	.....	.....	.....
	1880	6	141,425	.....	.....	126	26,075	.....	107,401	212,065
Utah	1900	13	509,881	27	15,310	291	92,514	22,333	148,157	292,200
	1890	14	612,579	20	16,575	324	104,601	29,301	189,339	392,094
	1880	12	402,000	.....	.....	306	70,208	.....	150,698	287,361
Oregon	1900	12	1,178,370	30	33,420	675	209,421	74,863	467,205	901,512
	1890	6	1,350,585	44	32,775	358	142,538	86,906	327,502	614,932
	1880	10	566,800	.....	.....	216	86,088	.....	227,486	549,030
California	1900	14	1,819,481	40	51,568	922	340,420	100,821	886,260	1,463,936
	1890	20	3,235,263	61	68,366	1,733	448,224	199,373	1,238,067	2,080,215
	1880	14	1,840,800	.....	.....	986	375,718	.....	1,078,534	1,794,033
All other Western states[2]	1900	11	1,080,099	29	44,023	781	234,807	64,311	470,485	907,942
	1890	9	109,197	10	5,305	88	19,895	6,037	58,312	130,531
	1880	1	40,000	.....	.....	29	4,000	.....	52,000	70,000

[1] Included in "all other Western states."
[2] Includes establishments distributed as follows: 1900—Colorado, 2; Idaho, 2; Kansas, 2; Montana, 1; Nebraska, 2; North Dakota, 1; Wyoming, 1. 1890—Colorado, 2; Idaho, 1; Kansas, 2; Nebraska, 1; South Dakota, 2; Washington, 1. 1880—Washington, 1.

A comparison of the facts relating to the textile industry by geographic divisions and states illustrates a condition that has existed from the beginning and which is undergoing a slow but steady change, namely, that the establishments engaged in this manufacture are concentrated most densely in the Northeastern part of the country, but that the Southern states are rapidly advancing in the number and importance of their establishments. The capital in the year 1900 reported by the New England states is slightly more than one-half of the whole country; in 1890 it was 57.6 per cent, and in 1880 it was 63.4 per cent. A somewhat similar condition is shown in the number of wage-earners, the amount paid for wages, the cost of materials, and the value of products. The percentages differ from those given for capital, but in general the importance of New England, as shown by these items, is nearly or quite that of all the rest of the country, but is less than it was in 1890, and still less than the condition in 1880.

Among the New England states Massachusetts is, as

it has always been, conspicuously in the lead. Practically one-half of the capital, the employees, the wages paid, materials used, and products are to be credited to that state. Rhode Island is second among the New England states, and Connecticut is third, this order having been observed without variation ever since the textile manufacture existed in the United States.

Taking capital as the standard, the Middle states represent 30.7 per cent of the total for the country, Pennsylvania being first, New York second, and New Jersey third.

The sudden springing of the Southern states into prominence in this industry is shown strikingly by the total increase of capital from $20,413,414 in 1880 to $62,623,729 in 1890, and to $137,172,561 in 1900. Ten years ago, and also in 1880, Georgia was easily the leader among the Southern states, but it has now been surpassed by both South Carolina and North Carolina, in each of which states the value of products was not much less than in the states of Maine and New Hampshire, where the industry has been established for half a century; and in the number of hands employed both North and South Carolina surpass both of these two New England states. The growth in Alabama has been also very great, the amount of capital having almost exactly quadrupled in ten years.

The situation in the Western states is not different from that which has previously existed. The textile industry has never obtained a strong foothold in these states, and shows no great tendency to become important.

COTTON MANUFACTURES.

COTTON MANUFACTURES.

By Edward Stanwood, *Expert Special Agent.*

Civilized man finds three things absolutely essential to his life and comfort—food, shelter, and clothing. The labor necessary to procure the indispensable articles which represent these wants diminishes as one approaches the equator, and conversely it increases as one passes from torrid to temperate climates and thence onward toward the poles of the earth. Tillage of the soil, the construction of dwellings, and the conversion of skins and furs or of vegetable or animal fibers into clothing, are arts which establish themselves naturally wherever man fixes his abode. The provision of shelter always remains a local art, from the necessity of the case. An adequate supply of fuel, which is a concomitant of shelter, was frequently the first want for which pioneer communities in early times were compelled to provide from without. Next they supplemented their own provision of clothing with fabrics and garments made elsewhere; and finally as population became dense, and labor was drawn from agriculture and was specialized in commerce and manufactures, they were obliged to import their food.

In the sense indicated, the colonists of America were engaged in all the arts necessary to supply their own wants, and among those arts was the manufacture of cloth and of clothing. They were prohibited by the laws of the mother country from carrying on manufactures for purposes of trade and profit, but the household manufacture always existed. A considerable part of their clothing was made from domestic material, spun and woven in their homes, and made up by members of their own families. When Hamilton wrote his great Report on Manufactures, in 1791, he referred to certain branches of the textile industry as already established, yet at that time there was but one cotton factory where spinning was carried on by means of machinery moved by waterpower, and that factory had been established less than a year and had but 72 spindles. There were no woolen mills in the modern sense of the term, but there were many fulling mills where wool was prepared for household spinning.

Although some progress was made during the next twenty years, it was not until the War of 1812 cut off foreign supplies that the cotton manufacture was truly "established." Since that time it has expanded steadily and marvelously. During every decade, not even excepting that which covered the years of the Civil War, there has been an increase in the number of operatives employed and in the quantity and value of the goods manufactured. The census of 1850 showed a total value of products of $61,869,184. Ten years later, in 1860, the value of products had almost doubled, being $115,681,774. In 1870 the value had increased to $177,489,739, a large part of the increase being due to inflation of the currency. The decline to normal price in the ensuing decade masked the actual growth of the industry, and in 1880 the value of products was only $192,090,110. In 1890 the value was $267,981,724; at the census of 1900 it was $339,200,320—five and a half times as much as in 1850, when it was already the leading manufacturing interest in the United States. It was the first, the largest, and the most typical factory industry in the country, and still holds its ranks, almost undisputed, in all these respects.

The growth of the industry is sufficient proof, were such proof needed, that it has been profitable. Nevertheless it has been subjected to many and sometimes protracted seasons of discouragement and loss. The margin between the price of a pound of raw cotton and that of a pound of goods, whether yarn or cloth, is, in the face of the keen competition which exists, so small that the profits of a mill during a whole year may depend upon the luck or judgment of the treasurer in buying his raw material at the right or the wrong season, which in turn largely depends upon his skill or his fortune in forecasting a large or a small cotton crop. So far as that were the case, what one treasurer might lose another treasurer would gain, and the ultimate effect upon the profits of the industry as a whole would be *nil*. But the fact of a large or a small cotton crop makes an enormous difference in the profits of manufacturers. The general condition of the country determines the demand for goods, and consequently the price; but the cost of production depends greatly upon the price of cotton. Cheap cotton and a quick demand make the manufacture profitable; dear cotton, a sluggish rate of consumption, and labor troubles reduce or extinguish profits. Unfortunately the latter set of conditions is too often presented. Fortunately it is not usually met in so virulent a form as to cause actual loss, and the situation does not ordinarily last long.

Upon the whole, the history of the past ten years was not one of prevailing prosperity. Two influences interfered to reduce profits—an extremely wide fluctuation in the price of cotton, and the great increase of competition caused by the growth of the industry in the Southern states. The first of these influences was general in its application; the other applied to Northern mills only. The new Southern mills, equipped with the most efficient machinery, favored by peculiarly free conditions as to labor, chiefly engaged in the production of goods for which the demand was most steady, and helped not a little by close proximity to the field of supply of their raw material, were able to show constant and large profits; whereas their Northern competitors passed through seasons of no profit or of moderate gains, with only one or two periods when their business was eminently satisfactory.

The condition throughout the census year 1889–90 was highly favorable to manufacturers, and they made extraordinary profits. Barely 1 per cent of the cotton spindles in the country was idle, and most of those were so because they were antiquated and not worth running. But a rise in the price of cotton, from 10 cents a pound in January, 1890, to 11½ cents in April, brought discouragement, because a slackened demand for goods compelled a reduction in the price of cloth at the same time that the cost of producing it was increased. The change to unfavorable conditions was felt first in the great print-cloth center, at Fall River, where a stoppage of the mills and a general curtailment of production became necessary in August. Other branches of the cotton manufacture continued fairly profitable for a few months longer, but before the end of the year all branches were depressed. There was, nevertheless, a somewhat speedy recovery; an improvement set in quite early in the spring for all except print cloths, which continued to be weak. There was an extraordinary fall in the price of cotton, owing to the prospect of a large crop, from 12¾ cents in May, 1891, to 8 cents in June. Notwithstanding this favorable turn of the market, the Northern mills felt the first check to prosperity, owing to Southern competition. Again in September of that year it became necessary both to curtail production by the Fall River mills and to reduce wages. This time the means taken were effectual. Stocks were worked off and the market demand became strong. Accordingly the year 1892 was one of the good years of the industry. No complaints were heard from any part of the country.

In 1893 there was once more a reverse. Cotton manufacturing in England, which had been in an extraordinarily depressed state in 1892, now became prosperous, whereas in the United States it was dull and unsatisfactory. In August there were strikes and closing of mills, and the unfavorable conditions continued throughout the year 1894. No doubt apprehension by manufacturers of tariff legislation less favorable to their interests than the existing import duties went far to create the difficulties with which they contended. The passage of the act of 1894, however, did no injury to the interests of the manufacturers, and the industry revived, and was in a prosperous condition in 1895. Stocks were small, prices were fair, and although cotton was higher, the results of the year were remunerative. This was brought about because mills were well provided with stocks of low-priced cotton of the 1894 crop, and the prospect of a short crop in 1895 gave tone to the market for cloth. Orders were large, prices advanced, machinery was in full operation, and the year 1895 ended with excellent prospects of a continuance of prosperity.

These prospects were not realized. Early in 1896 the market demand began to decline, and as the machinery continued in operation, goods accumulated. The situation became such that in June, efforts were made by means of auction sales of large stocks of goods to reduce the surplus. There was also the suggestion that there be once more an organized curtailment of production, which was not carried out. The attempt to work off the surplus goods was successful, and the prospects of manufacturers brightened to a certain extent, but it was soon discovered that the market had been choked. Cotton advanced in price, narrowing the margin between the cost of raw cotton and the selling value of finished goods, and the demand was not great enough to absorb the output of the largely increased number of mills. The depression that existed in 1896 was due to the agitation and uncertainty that always prevail in a year of Presidential election, which were in this instance more acute than usual. But the peculiar situation of the two markets that determine the financial result of a cotton manufacturer's operations prolonged the depression, and continued it after other branches of business had begun to experience the great prosperity that marked the closing years of the century. Many mills were shut down in May and June, 1897. Renewed sales of goods by auction in the spring broke prices and demoralized the market, as well as reduced to petty proportions the demand for goods of current manufacture. There was another curtailment of production, then a great drop in the price of cotton; but the quick absorption of goods, owing to the generally prosperous condition of the people, rectified the situation altogether, and manufacturers entered upon a somewhat prolonged period of great prosperity. The only interruption was in the print-cloth branch, which was in a very unfavorable condition at Fall River in 1898, and the average return upon capital by the mills of that city for the year was only 2.2 per cent. But prosperity came to Fall River also during the year 1899, beginning about the month of March, and during the whole of the census year, from June, 1899, to June, 1900, all the mills of the country were fully occupied. Goods were produced from cotton costing within a

fraction of the lowest on record, and although they were sold at prices which were low as compared with the average for any five years in the past, yet they yielded a profit which, taking the country as a whole, has never been exceeded.

It must always be borne in mind that the foregoing statements apply more particularly to establishments and to the conditions of trade in the manufacturing centers of the North. Prior to the close of the census year there had been scarcely any interruption of the exceeding prosperity of Southern spinners. They did not curtail production when many Northern manufacturers were in a state bordering upon despair; on the contrary, a large number of their mills were running day and night. They did not seek to dispose of their product by auction, but sold all they could make at prices which gave their stockholders handsome dividends.

THE FOREIGN TRADE IN COTTON GOODS.

It is further to be noted in this connection that for the first time in the history of American cotton manufacturing, the domestic market was more than once relieved and steadied by the exportation of goods to foreign markets. This statement does not signify that the export of domestics is a new thing, for it was a feature of the American foreign trade eighty years ago, but that for the first time the existence of an important outlet for such goods saved manufacturers from a disastrous glut, and mitigated the keenness of the competition that became most serious when the South entered the market as a great producer.

The history of the trade of the United States in cotton goods presents some peculiarities which distinguish it from the trade in any other class of articles. In a broad sense the cotton manufacturers have possessed the home market for three-quarters of a century. Nevertheless, in the intervening years there has been a large and important import trade. The seeming paradox disappears when the first of the following tables is critically examined. The imports consist mostly of goods which American manufacturers have never undertaken to produce on a large scale. An overwhelming proportion of the manufactures of cotton consumed in this and other countries consists of plain cloth woven from coarse or medium yarns. Save in a few exceptional years, the American manufacturers have been able to supply fully the demand for such goods. Meanwhile the arrangement of the tariff has been usually such that foreign manufacturers were not permitted to compete successfully in this market.

Table 1 shows the annual imports of manufactures of cotton from 1821 to 1900, inclusive, as compiled from the annual reports on Commerce and Navigation, published by the United States Treasury Department.

TABLE 1.—ANNUAL IMPORTS OF MANUFACTURES OF COTTON, 1821 TO 1900, INCLUSIVE.[1]

YEARS.	Total value.	CLOTHS.				Value of clothing, ready-made, and other wearing apparel, not including knit goods	Value of embroideries, laces, insertings, trimmings, and lace curtains, cords, and gimps.	Value of knit goods made on knitting machines or knit by hand.	THREAD (NOT ON SPOOLS), YARNS, WARPS, OR WARP YARNS.		JEANS, DENIMS, AND DRILLINGS.		All other manufactures.
		Bleached and unbleached.		Printed, painted, and colored.									
		Square yards.	Value.	Square yards.	Value.				Pounds.	Value.	Square yards.	Value.	Value.
Total.	$91,972,247	.....	$29,300,792	.....	$52,709,603	.....	.....	$5,422,605	.....	$1,881,685	.....	.....	$2,657,562
1821	7,788,514	.....	2,873,383	.....	4,366,407	.....	.....	397,586	.....	151,138	.....	.....	.....
1822	10,680,216	.....	3,774,992	.....	5,856,763	.....	.....	866,618	.....	181,843	.....	.....	.....
1823	8,869,482	.....	3,237,513	.....	4,899,499	.....	.....	629,211	.....	103,259	.....	.....	.....
1824	7,239,759	.....	1,991,066	.....	4,609,236	.....	.....	523,821	.....	115,036	.....	.....	.....
1825	12,509,516	.....	3,676,451	.....	7,709,830	.....	.....	545,915	.....	201,549	.....	.....	375,771
1826	8,348,034	.....	2,565,004	.....	5,056,725	.....	.....	404,870	.....	175,143	.....	.....	146,292
1827	9,316,153	.....	2,841,215	.....	5,316,546	.....	.....	439,773	.....	263,772	.....	.....	454,847
1828	10,996,230	.....	2,839,547	.....	6,133,844	.....	.....	640,360	.....	344,040	.....	.....	1,038,439
1829	8,362,017	.....	2,784,981	.....	4,404,078	.....	.....	586,997	.....	173,120	.....	.....	412,838
1830	7,862,326	.....	2,716,037	.....	4,356,675	.....	.....	387,454	.....	172,785	.....	.....	229,375
Total.	116,486,231	.....	21,065,018	.....	75,274,878	.....	.....	10,268,156	.....	4,324,967	.....	.....	5,553,212
1831	16,090,224	.....	4,399,251	.....	10,046,500	.....	.....	887,957	.....	393,414	.....	.....	363,102
1832	10,399,653	.....	2,379,301	.....	6,355,475	.....	.....	1,035,513	.....	316,122	.....	.....	313,242
1833	7,660,449	.....	1,218,513	.....	5,181,647	.....	.....	623,369	.....	343,059	.....	.....	293,861
1834	10,145,181	.....	1,793,819	.....	6,688,823	.....	.....	749,356	.....	379,793	.....	.....	533,390
1835	15,367,585	.....	2,747,514	.....	10,610,722	.....	.....	906,369	.....	544,473	.....	.....	558,507
1836	17,876,087	.....	2,795,135	.....	12,192,980	.....	.....	1,358,608	.....	555,290	.....	.....	974,074
1837	11,150,841	.....	1,647,388	.....	7,087,270	.....	.....	1,267,267	.....	404,603	.....	.....	744,313
1838	6,599,330	.....	1,007,191	.....	4,217,551	.....	.....	767,856	.....	222,114	.....	.....	384,618
1839	14,692,397	.....	2,158,703	.....	9,000,216	.....	.....	1,879,783	.....	779,004	.....	.....	874,691
1840	6,504,484	.....	918,203	.....	3,893,694	.....	.....	792,078	.....	387,095	.....	.....	513,414
Total.	136,804,969	.....	16,674,286	.....	88,005,850	.....	$3,612,457	11,503,447	.....	6,014,843	.....	.....	10,994,086
1841	11,757,036	.....	1,573,722	.....	7,434,727	.....	.....	980,639	.....	863,130	.....	.....	904,818
1842	9,578,515	.....	1,285,947	.....	6,168,544	.....	.....	1,027,621	.....	457,917	.....	.....	638,486
1843	2,958,796	.....	393,105	.....	1,739,318	.....	.....	307,243	.....	26,227	.....	.....	492,903
1844	13,641,478	.....	1,670,769	.....	8,894,219	.....	.....	1,121,460	.....	637,006	.....	.....	1,318,024
1845	13,863,282	.....	1,823,451	.....	8,572,546	.....	.....	1,326,631	.....	565,769	.....	.....	1,574,885
1846	13,530,625	.....	1,597,120	.....	8,755,392	.....	.....	1,308,202	.....	656,571	.....	.....	1,213,340
1847	15,021,550	.....	2,630,979	.....	10,023,418	.....	.....	1,173,824	.....	511,136	.....	.....	682,193
1848	19,138,141	.....	2,487,256	.....	12,490,501	.....	1,387,218	1,383,871	.....	727,422	.....	.....	661,873
1849	16,540,200	.....	1,438,635	.....	10,286,894	.....	1,552,586	1,315,783	.....	770,509	.....	.....	1,175,793
1850	20,775,346	.....	1,773,302	.....	13,640,291	.....	672,653	1,558,173	.....	799,156	.....	.....	2,331,771

[1] Annual Reports on Commerce and Navigation, United States Treasury Department.

TABLE 1.—ANNUAL IMPORTS OF MANUFACTURES OF COTTON, 1821 TO 1900, INCLUSIVE[1]—Continued.

YEARS.	Total value.	CLOTHS. Bleached and unbleached. Square yards.	Bleached and unbleached. Value.	Printed, painted, and colored. Square yards.	Printed, painted, and colored. Value.	Value of clothing, ready-made, and other wearing apparel, not including knit goods.	Value of embroideries, laces, insertings, trimmings, and lace curtains, cords, and gimps.	Value of knit goods made on knitting machines or knit by hand.	THREAD (NOT ON SPOOLS), YARNS, WARPS, OR WARP YARNS. Pounds.	Value.	JEANS, DENIMS, AND DRILLINGS. Square yards.	Value.	All other manufactures. Value.
Total.	$265,744,157	.....	$64,692,197	.....	$112,936,494	.....	$19,794,631	$27,728,527	.....	$12,486,172	.....	.....	$28,106,136
1851	22,921,093	.....	1,499,044	.....	14,449,421	.....	2,715,425	2,117,899	.....	980,839	.....	.....	1,158,465
1852	20,224,552	.....	2,477,486	.....	11,553,306	.....	2,289,863	2,152,340	.....	887,840	.....	.....	863,717
1853	28,573,070	.....	2,718,816	.....	14,623,268	.....	4,056,621	3,002,631	.....	1,095,518	.....	.....	3,076,186
1854	34,803,055	.....	2,191,217	.....	17,423,249	.....	5,088,667	3,013,664	.....	1,076,987	.....	.....	6,009,271
1855	18,524,167	.....	12,563,522	.....	.....	.....	895,555	2,055,595	.....	997,673	.....	.....	2,011,822
1856	27,109,018	.....	19,110,752	.....	.....	.....	1,385,024	2,516,848	.....	1,276,760	.....	.....	2,819,634
1857	29,815,480	.....	21,441,082	.....	.....	.....	1,343,578	3,210,287	.....	1,401,153	.....	.....	2,419,380
1858	18,584,810	.....	741,077	.....	12,391,713	.....	660,649	2,120,868	.....	1,080,671	.....	.....	1,589,832
1859	26,973,381	.....	784,964	.....	16,561,533	.....	646,870	3,228,036	.....	1,913,417	.....	.....	3,838,561
1860	38,215,531	.....	1,164,207	.....	25,934,004	.....	712,379	4,310,359	.....	1,775,314	.....	.....	4,319,268
Total.	186,119,390	160,189,415	29,195,616	152,889,316	42,920,114	$3,349,446	7,337,253	28,688,747	.....	10,741,743	28,828,725	$6,996,084	56,890,387
1861	24,985,389	.....	705,156	.....	14,947,744	.....	341,880	3,822,761	.....	1,380,119	.....	.....	3,787,729
1862	8,907,305	13,343,169	1,140,969	15,651,728	1,573,583	.....	402,578	.....	.....	1,116,782	.....	.....	4,673,393
1863	14,121,589	15,911,460	1,527,455	17,007,719	1,921,835	.....	693,672	.....	.....	1,605,781	.....	.....	8,372,846
1864	14,341,501	12,039,629	1,424,775	9,689,441	1,737,001	.....	741,310	.....	.....	1,279,424	.....	.....	9,158,991
1865	7,558,932	7,400,680	1,059,215	10,278,826	1,452,930	.....	381,851	2,025,767	.....	608,292	2,569,706	466,835	1,564,042
1866	29,519,228	55,127,685	7,808,027	48,762,557	6,944,712	676,101	1,467,392	5,020,167	.....	1,459,392	13,473,049	2,146,377	3,997,060
1867	26,164,007	.....	5,276,551	.....	5,062,505	1,445,459	1,767,243	5,620,776	.....	1,617,149	.....	1,717,941	3,656,383
1868	16,660,074	.....	2,795,079	.....	2,315,849	1,227,886	1,541,327	3,457,525	.....	1,674,804	.....	855,374	2,702,239
1869	20,481,312	26,860,638	3,533,132	21,480,786	2,960,918	.....	.....	4,007,276	.....	.....	6,947,359	991,051	8,988,935
1870	23,380,053	29,506,154	3,925,266	30,027,259	4,003,037	.....	.....	4,734,475	.....	.....	5,838,611	818,506	9,898,769
Total.	266,905,606	211,443,055	26,001,955	189,363,275	25,851,170	.....	.....	51,237,968	.....	.....	29,963,783	4,330,640	159,483,873
1871	29,876,640	36,938,026	4,883,622	28,975,876	3,634,315	.....	.....	5,085,993	.....	.....	5,386,146	737,251	15,535,459
1872	35,307,447	41,700,373	5,316,877	36,578,465	4,975,624	.....	.....	5,451,523	.....	.....	6,483,461	878,580	18,684,843
1873	35,201,324	31,152,540	3,865,558	33,355,661	5,028,256	.....	.....	5,449,208	.....	.....	3,685,477	536,393	20,321,909
1874	28,193,869	26,361,866	3,093,933	23,380,235	3,155,494	.....	.....	4,621,259	.....	.....	2,220,653	327,138	16,996,045
1875	27,738,401	23,418,257	2,873,222	18,399,891	2,593,936	.....	.....	4,948,024	.....	.....	1,955,825	268,739	17,054,480
1876	22,725,598	15,007,450	1,845,653	15,501,344	2,074,944	.....	.....	4,682,871	.....	.....	1,299,627	182,257	13,939,873
1877	18,923,614	11,048,698	1,237,312	10,299,915	1,415,112	.....	.....	3,804,520	.....	.....	641,611	86,919	12,379,751
1878	19,081,037	9,676,594	1,076,142	8,335,123	1,086,426	.....	.....	4,682,246	.....	.....	825,328	104,633	12,131,590
1879	19,928,310	6,673,088	789,359	5,195,126	707,064	.....	.....	4,997,335	.....	.....	1,043,268	141,066	13,293,486
1880	29,929,366	9,466,163	1,020,277	9,341,639	1,179,999	.....	.....	7,514,989	.....	.....	6,422,387	1,067,664	19,146,437
Total.	302,987,592	47,307,813	5,015,870	199,782,036	24,741,393	3,134,912	74,346,572	71,435,037	11,184,870	6,303,612	24,895,570	4,384,210	113,625,986
1881	31,219,329	11,236,712	1,253,428	7,128,360	928,043	.....	.....	8,391,634	.....	.....	7,608,861	1,332,326	19,313,898
1882	34,351,292	13,798,147	1,503,127	6,687,837	924,602	.....	.....	7,501,449	.....	.....	12,797,527	2,257,594	22,164,520
1883	36,853,689	9,368,287	1,039,752	7,163,340	1,120,574	.....	.....	8,560,063	.....	.....	4,489,182	794,290	25,339,010
1884	29,074,626	1,687,613	174,323	[1] 19,504,784	2,187,044	792,402	10,012,394	6,994,341	1,895,699	1,339,777	.....	.....	7,574,345
1885	27,197,241	856,213	103,200	[1] 24,274,281	2,653,320	408,810	10,123,234	6,307,239	909,480	652,202	.....	.....	6,949,236
1886	29,709,266	2,176,606	225,103	[1] 29,551,543	3,467,485	384,770	11,632,351	6,858,072	1,147,181	669,096	.....	.....	6,472,389
1887	28,940,353	3,021,696	301,636	[1] 24,928,404	3,033,946	436,356	10,467,073	6,910,104	1,894,798	919,994	.....	.....	6,871,244
1888	28,917,799	1,077,070	82,613	[1] 26,483,126	3,356,532	392,307	11,071,907	6,373,780	1,886,672	957,705	.....	.....	6,682,955
1889	26,805,942	2,577,230	203,100	[1] 27,808,959	3,696,194	383,612	9,591,943	6,389,325	1,744,852	860,703	.....	.....	5,681,065
1890	29,918,055	1,508,239	129,588	[1] 26,251,402	3,373,653	336,655	11,447,670	7,149,030	1,706,188	904,135	.....	.....	6,577,324
Total.	314,624,770	20,441,335	1,831,419	[2] 412,063,936	52,536,729	17,190,458	123,266,407	54,733,325	20,891,442	8,426,407	.....	.....	56,640,025
1891	29,712,624	1,802,397	170,423	[1] 31,055,214	[2] 4,237,221	1,201,278	10,589,490	6,738,775	1,686,039	857,645	.....	.....	5,917,792
1892	28,323,841	1,572,224	140,001	[1] 32,407,238	[2] 4,505,666	1,261,848	11,248,289	5,833,652	1,426,585	664,952	.....	.....	4,669,433
1893	33,560,293	3,225,767	261,202	[1] 42,546,157	[2] 5,536,275	1,682,049	12,741,798	6,392,175	1,734,418	762,653	.....	.....	6,184,141
1894	22,346,547	1,152,798	95,565	[1] 27,172,415	[2] 3,385,241	1,658,778	8,021,769	4,360,655	747,038	326,224	.....	.....	4,498,315
1895	33,196,625	1,544,421	125,816	[1] 45,342,525	[2] 5,428,243	2,766,877	11,686,016	6,535,179	1,784,855	658,702	.....	.....	5,995,792
1896	32,437,504	2,136,657	179,364	[1] 41,161,822	[2] 4,921,060	2,683,315	10,878,954	6,190,672	2,431,855	872,067	.....	.....	6,712,072
1897	34,429,363	3,177,241	273,654	[1] 35,937,975	[2] 4,404,025	2,627,222	12,573,207	5,596,703	1,664,217	647,388	.....	.....	8,307,164
1898	27,267,300	1,520,108	120,767	[1] 43,258,291	[2] 5,313,682	1,050,554	11,768,704	4,034,483	1,817,970	687,999	.....	.....	4,291,110
1899	32,054,434	1,250,932	107,023	[1] 51,196,236	[2] 6,649,014	1,027,306	14,550,015	4,335,269	2,325,974	849,819	.....	.....	4,535,988
1900	41,296,239	3,061,790	357,604	[1] 61,986,063	[2] 8,156,301	1,231,231	19,208,165	4,715,762	5,272,491	2,098,958	.....	.....	5,528,218

[1] Includes "bleached."

Table 1 shows that from 1821 to 1855 the value of plain, uncolored cotton cloth imported exceeded $4,000,000 in a single year only, the year 1831; and that the annual average value of such goods imported declined from $2,930,079 in the decade 1821–1830, to $2,106,502 in the decade 1831–1840, and to $1,667,429 in the decade 1841–1850. Except during the three years 1855–1857 the importation was not materially greater during the ensuing decade; and notwithstanding the great advance of the country in population and wealth, the annual average value of the same class of goods in the years 1891–1900 was but $183,142. This class consists of fabrics which are reported by the census as plain cloths for printing and converting, sheetings and shirtings, duck, etc., the value of the domestic production of which is so large that the foreign importation is undoubtedly less than 2 per cent of it.

The same table shows that the average value of the

imported cloths per square yard is much above the value of the domestic article. This is because the importation is confined almost exclusively to fine goods, which American manufacturers have only lately begun to produce. Another class of importations which is larger than that already mentioned is colored goods. Some purchasers have so rooted a preference for foreign ginghams and calicoes that they will not buy the American product. The imports of such goods have lately shown a tendency to increase, but the value of colored cloth imported in 1900, when the amount was the largest in recent years, was little more than twice the annual average from 1860 to 1883. The most important importations of cotton are the fancy articles, classed as embroideries, laces, trimmings, cords, gimps, etc., which, with knit goods, constitute more than one-half of the total value of all articles of cotton imported. In short, the trade in foreign manufactures of cotton is almost altogether in special classes of goods which are not made extensively in the United States, or in articles which the customs and habits of buyers lead them to prefer, regardless of considerations of cost or superiority.

Table 2 shows the annual exports of cotton manufactures from 1826 to 1900, inclusive, as compiled from the annual reports on Commerce and Navigation published by the United States Treasury Department.

TABLE 2.—ANNUAL EXPORTS OF MANUFACTURES OF COTTON, 1826 TO 1900, INCLUSIVE.[1]

YEARS.	Total value.	CLOTHS.				Wearing apparel. Value.	All other manufactures. Value.
		Uncolored.		Colored.			
		Square yards.	Value.	Square yards.	Value.		
Total	$5,885,411	.....	$4,637,597	.....	$396,840	.....	$850,974
1826	1,138,125	.....	830,532	.....	68,884	.....	238,709
1827	1,159,414	.....	965,751	.....	45,120	.....	148,543
1828	1,010,232	.....	892,777	.....	76,012	.....	41,443
1829	1,259,457	.....	983,248	.....	145,024	.....	131,185
1830	1,318,183	.....	965,289	.....	61,800	.....	291,094
Total	25,203,681	.....	20,626,289	.....	3,079,661	.....	1,497,731
1831	1,126,313	.....	950,329	.....	96,931	.....	79,053
1832	1,229,574	.....	1,053,232	.....	104,870	.....	71,472
1833	2,532,517	.....	1,804,170	.....	421,721	.....	306,626
1834	2,085,994	.....	1,757,197	.....	188,619	.....	140,178
1835	2,858,681	.....	2,355,602	.....	397,412	.....	105,667
1836	2,255,734	.....	1,951,432	.....	256,625	.....	47,677
1837	2,831,473	.....	2,044,930	.....	549,801	.....	236,742
1838	3,758,755	.....	3,256,147	.....	252,044	.....	250,564
1839	2,975,033	.....	2,526,793	.....	412,661	.....	35,579
1840	3,549,607	.....	2,926,457	.....	398,977	.....	224,173
Total	39,557,256	.....	31,797,461	.....	4,181,847	.....	3,577,948
1841	3,122,546	.....	2,324,839	.....	450,503	.....	347,204
1842	2,970,690	.....	2,297,964	.....	385,040	.....	287,686
1843	3,223,550	.....	2,575,049	.....	358,415	.....	290,086
1844	2,898,780	.....	2,298,800	.....	385,403	.....	214,577
1845	4,327,928	.....	3,517,142	.....	516,243	.....	294,543
1846	3,545,481	.....	2,827,320	.....	380,549	.....	337,612
1847	4,082,523	.....	3,354,696	.....	281,320	.....	446,507
1848	5,718,205	.....	4,868,924	.....	351,169	.....	498,112
1849	4,933,129	.....	3,958,320	.....	466,574	.....	508,235
1850	4,734,424	.....	3,774,407	.....	606,631	.....	353,386
Total	73,059,955	.....	37,416,124	.....	18,268,343	.....	17,375,488
1851	7,241,205	.....	5,571,576	.....	1,006,561	.....	663,068
1852	7,672,151	.....	6,139,391	.....	926,404	.....	606,356
1853	8,768,894	.....	6,926,485	.....	1,086,167	.....	756,242
1854	5,535,516	.....	3,927,148	.....	1,136,493	.....	471,875
1855	5,857,181	.....	2,793,910	.....	2,613,655	.....	449,616
1856	6,967,309	.....	4,290,361	.....	1,966,845	.....	710,103
1857	6,115,177	.....	3,463,230	.....	1,785,685	.....	866,262
1858	5,651,504	.....	1,598,136	.....	2,069,194	.....	1,984,174
1859	8,316,222	.....	1,302,381	.....	2,320,890	.....	4,692,951
1860	10,934,796	.....	1,403,506	.....	3,356,449	.....	6,174,841
Total	39,859,343	28,477,444	6,712,606	12,912,363	6,487,918	.....	26,638,819
1861	7,957,038	.....	1,076,959	.....	2,215,032	.....	4,665,047
1862	2,946,464	.....	508,004	.....	587,500	.....	1,850,960
1863	2,906,411	.....	254,751	.....	630,558	.....	2,021,102
1864	1,456,901	177,065	56,639	1,569,235	401,411	.....	998,851
1865	3,651,561	122,372	58,469	1,218,724	857,573	.....	2,735,519
1866	1,780,175	3,041,715	718,006	405,988	88,742	.....	973,427
1867	4,608,235	6,020,731	1,142,451	674,426	139,964	.....	3,325,820
1868	4,871,054	10,839,177	1,551,339	2,979,275	531,669	.....	2,788,046
1869	5,874,222	.....	.....	.....	.....	.....	5,874,222
1870	3,787,282	8,276,384	1,345,988	6,064,715	1,035,469	.....	1,405,825

[1] Annual Reports on Commerce and Navigation, United States Treasury Department.

TABLE 2.—ANNUAL EXPORTS OF MANUFACTURES OF COTTON, 1826 TO 1900, INCLUSIVE[1]—Continued.

YEARS.	CLOTHS.					Wearing apparel. Value.	All other manufactures. Value.
	Total value.	Uncolored.		Colored.			
		Square yards.	Value.	Square yards.	Value.		
Total	$66,210,965	445,869,911	$39,672,104	190,462,398	$16,454,141	.....	$10,084,320
1871	3,558,136	14,832,931	1,776,694	5,083,923	724,841	.....	1,056,601
1872	2,304,330	8,859,191	1,317,719	2,844,888	458,998	.....	527,613
1873	2,947,928	10,187,145	1,655,116	3,585,629	596,912	.....	695,500
1874	3,095,840	13,247,142	1,681,209	4,625,180	668,781	.....	745,850
1875	4,071,882	21,224,020	2,313,270	7,593,723	939,061	.....	819,551
1876	7,722,978	59,319,267	5,314,738	16,488,214	1,455,462	.....	952,778
1877	10,235,843	76,769,147	6,437,223	29,601,304	2,484,131	.....	1,314,489
1878	11,438,660	88,528,192	7,053,463	37,765,313	2,959,910	.....	1,425,287
1879	10,853,950	84,081,319	6,288,131	45,116,058	3,209,285	.....	1,356,534
1880	9,981,418	68,821,557	5,834,541	37,758,166	2,956,760	.....	1,190,117
Total	127,491,518	1,062,022,145	77,387,248	456,655,097	31,215,625	$4,265,408	14,623,237
1881	14,105,348	80,399,154	6,624,374	68,184,293	4,983,312	533,961	1,963,701
1882	13,828,377	114,994,402	9,351,713	29,525,672	2,326,319	605,398	1,544,947
1883	13,721,605	103,634,459	8,629,723	34,066,292	2,648,278	770,460	1,673,144
1884	11,885,211	99,750,450	7,503,361	35,441,296	2,579,866	349,270	1,452,714
1885	11,836,591	114,806,595	7,919,670	32,738,123	2,230,567	267,775	1,418,579
1886	13,959,934	142,547,980	9,231,170	51,293,373	3,149,091	435,536	1,144,137
1887	14,929,342	136,809,074	9,256,486	67,793,013	4,003,772	442,757	1,226,327
1888	13,013,189	115,766,679	7,812,947	54,446,936	3,522,612	317,652	1,359,978
1889	10,212,644	77,596,862	5,577,401	40,856,329	2,885,373	301,803	1,448,067
1890	9,999,277	75,716,490	5,480,403	42,309,770	2,886,435	240,796	1,391,643
Total	169,240,352	1,784,369,304	97,111,912	661,332,474	37,566,275	7,558,516	27,003,649
1891	13,604,857	135,529,590	9,277,112	39,016,682	2,590,934	278,169	1,458,642
1892	13,226,277	142,938,871	8,673,663	40,815,450	2,484,360	433,102	1,635,152
1893	11,809,355	100,776,006	6,306,022	43,016,108	2,802,462	452,356	2,248,515
1894	14,340,886	124,349,278	7,639,851	61,538,458	3,854,935	476,617	2,369,483
1895	13,789,810	125,790,318	7,034,678	58,467,743	3,444,539	518,730	2,791,863
1896	16,837,396	166,391,639	9,539,199	58,747,729	3,419,158	708,099	3,170,940
1897	21,037,678	230,123,603	12,511,389	83,409,441	4,770,231	878,804	2,877,254
1898	17,024,092	191,092,442	9,151,936	79,415,376	4,138,887	934,192	2,799,077
1899	23,566,914	303,063,083	13,748,619	108,940,972	5,221,278	1,275,839	3,321,178
1900	24,003,087	264,314,474	13,229,443	87,880,515	4,839,491	1,602,608	4,331,545

[1] Annual Reports on Commerce and Navigation, United States Treasury Department.

Table 2 shows that the exportation of cotton goods has been a feature of the foreign trade for more than seventy-five years. It is impossible to go further back than 1826, because the separate values of articles exported were then reported for the first time. The trade was established soon after the foundation of the modern factory industry, at Waltham, Mass. It became prominent when that first great success was followed up in the development of Lowell. As early as 1851 the annual value of cotton goods exported exceeded $7,000,000; and it is safe to say that this amount represented more than one-half of the total value of American manufactures of all kinds sent to foreign countries in that year. The year 1860 marked the temporary culmination of this trade, when the declared value of cotton manufactures exported was but a trifle less than $11,000,000. The Civil War ensued and not only this branch of the foreign trade, but the cotton trade itself also, was well-nigh annihilated for several years.

When the growth of the cotton crop was resumed, the United States had lost its foreign markets, had given up its shipping formerly engaged in the foreign trade, and had closed most of the mercantile houses in other lands which had previously given its merchants access to the markets of Asia, Africa, and South America. Moreover, the extraordinary increase of population and of wealth at home, and the great demand for cloth to replenish family supplies exhausted during the war period, gave manufacturers ample field for their enterprise in supplying the home consumption. In these circumstances scarcely any attempt was made to recover foreign markets. The exportation declined to a value of less than $1,500,000 in 1864, and from 1866 to 1876, eleven years, the annual average was barely $4,000,000. From 1877 onward there was a moderate revival of the trade. In only five years in the last quarter of a century, 1877 to 1902, has the value fallen below the high mark of 1860, and on the whole there has been steady progress. The following table shows the value of exports of cotton goods in five-year periods:

PERIOD.	Total exports.	Yearly average.
1877–1881	$56,615,219	$11,323,044
1882–1886	65,231,718	13,046,324
1887–1891	61,759,309	12,251,862
1892–1896	70,003,724	14,000,745
1897–1901	105,904,189	21,180,838

The exportation during the census years of the last half century has been as follows: In 1860, $10,934,796; in 1870, $3,787,282; in 1880, $9,981,418; in 1890, $9,999,277; and in 1900, $24,003,087. These figures do not show the actual progress so well as the preceding

table, inasmuch as the exportation in 1880 and again in 1890 was less than during the years preceding or following those dates. The exportation in 1900 was the largest on record in declared value, although in the quantity of goods it was not so great as in 1899.

It was not possible, of course, to account for all the exports declared upon the clearing of vessels for foreign ports, since a considerable part of the domestics sold abroad are made for the home market and are purchased for sale in other countries after they have passed wholly out of the control and the knowledge of manufacturers; but so far as the managers of mills are able to trace their products, they furnished goods for export during the year 1899–1900 to the value of $15,357,502, or about five-eighths of the value of cloth exported during the fiscal year. Almost 60 per cent of the total value represents the product of Southern mills, and nearly 37 per cent the goods of New England. It is an interesting fact that South Carolina, which was historically and politically, during the years preceding the Civil War, the most conspicuous champion of a policy favorable to the exportation of raw cotton, upon which the planters most relied, and opposed to the fostering of manufactures of cotton, spun in its own mills in 1900 a quantity of cotton exceeding the half of its own crop, and exported close upon one-half of all the cotton cloth reported to the census as having been dispatched to foreign countries. The exact percentage of South Carolina of the total export reported was 45.5.

Table 3 shows the annual exports of foreign manufactures of cotton goods from 1821 to 1900, inclusive, as compiled from the annual reports on Commerce and Navigation published by the United States Treasury Department. It is presented only for the purpose of furnishing the means of ascertaining—by subtracting the amounts and values from the corresponding statistics in Table 1—the actual consumption of foreign goods.

TABLE 3.—ANNUAL EXPORTS OF FOREIGN MANUFACTURES OF COTTON, 1821 TO 1900, INCLUSIVE.[1]

YEARS.	Total value.	CLOTHS.				Value of clothing ready-made and other wearing apparel, not including knit goods.	Value of embroideries, laces, insertings, trimmings, and of lace and window curtains.	Value of knit goods made on knitting machines or knit by hand.	THREADS (NOT ON SPOOLS), YARNS, WARPS, OR WARP-YARNS.		JEANS, DENIMS, AND DRILLINGS.		All other manufactures.
		Bleached and unbleached.		Printed, painted, and colored.									
		Square yards.	Value.	Square yards.	Value.				Pounds.	Value.	Square yards.	Value.	Value.
Total.	$20,747,327	.....	$9,740,469	.....	$9,954,599	.....	.....	$447,591	.....	$288,994	.....	.....	$315,674
1821	1,583,473	.....	1,194,910	.....	379,701	.....	.....	2,330	.....	6,532	.....	.....	.....
1822	1,682,010	.....	1,083,253	.....	572,626	.....	.....	17,314	.....	8,817	.....	.....	.....
1823	2,054,174	.....	1,386,024	.....	1,206,502	.....	.....	36,881	.....	24,767	.....	.....	.....
1824	2,561,168	.....	929,272	.....	1,544,231	.....	.....	79,191	.....	8,474	.....	.....	.....
1825	2,404,455	.....	1,148,610	.....	1,105,252	.....	.....	46,311	.....	9,412	.....	.....	94,870
1826	2,226,090	.....	1,018,702	.....	1,032,381	.....	.....	74,462	.....	34,862	.....	.....	65,683
1827	1,838,814	.....	725,636	.....	964,904	.....	.....	46,788	.....	63,413	.....	.....	38,073
1828	2,242,739	.....	730,897	.....	1,402,103	.....	.....	44,988	.....	46,736	.....	.....	18,015
1829	1,564,940	.....	699,468	.....	751,871	.....	.....	42,222	.....	27,656	.....	.....	43,723
1830	1,989,464	.....	823,697	.....	995,028	.....	.....	57,104	.....	58,325	.....	.....	55,310
Total.	23,581,508	.....	6,916,171	.....	15,009,337	.....	.....	342,713	.....	664,813	.....	.....	648,474
1831	3,228,858	.....	1,211,104	.....	1,746,442	.....	.....	57,015	.....	70,254	.....	.....	144,043
1832	2,322,087	.....	968,301	.....	1,094,412	.....	.....	62,775	.....	29,026	.....	.....	167,573
1833	2,504,518	.....	822,911	.....	1,352,286	.....	.....	45,937	.....	134,229	.....	.....	149,155
1834	2,866,854	.....	893,508	.....	1,818,578	.....	.....	43,649	.....	62,403	.....	.....	48,716
1835	3,697,837	.....	1,248,592	.....	2,308,636	.....	.....	33,994	.....	87,089	.....	.....	19,526
1836	2,765,676	.....	683,327	.....	1,975,156	.....	.....	16,689	.....	78,176	.....	.....	12,328
1837	2,683,418	.....	377,465	.....	2,103,527	.....	.....	41,360	.....	86,756	.....	.....	74,310
1838	1,153,506	.....	271,692	.....	826,111	.....	.....	14,746	.....	29,768	.....	.....	11,189
1839	1,255,265	.....	250,173	.....	945,636	.....	.....	12,916	.....	34,082	.....	.....	12,458
1840	1,103,489	.....	189,098	.....	838,553	.....	.....	13,632	.....	53,030	.....	.....	9,176
Total.	6,381,153	.....	1,583,311	.....	3,892,170	.....	$59,953	107,048	.....	539,911	.....	.....	198,760
1841	929,056	.....	131,632	.....	574,503	.....	.....	15,943	.....	198,996	.....	.....	7,982
1842	836,892	.....	110,069	.....	502,072	.....	.....	4,429	.....	208,193	.....	.....	12,129
1843	308,616	.....	33,998	.....	251,808	.....	.....	4,881	.....	15,028	.....	.....	2,901
1844	404,648	.....	90,381	.....	278,434	.....	.....	4,325	.....	24,958	.....	.....	6,550
1845	502,553	.....	162,599	.....	281,775	.....	.....	2,455	.....	10,922	.....	.....	44,802
1846	673,203	.....	357,047	.....	290,282	.....	.....	1,780	.....	8,482	.....	.....	15,612
1847	486,135	.....	83,715	.....	372,877	.....	.....	19,595	.....	3,808	.....	.....	6,140
1848	1,217,221	.....	487,456	.....	640,919	.....	9,835	20,272	.....	40,783	.....	.....	17,956
1849	583,241	.....	81,690	.....	424,941	.....	19,285	10,425	.....	7,718	.....	.....	39,182
1850	439,588	.....	44,724	.....	274,559	.....	30,833	22,913	.....	21,023	.....	.....	45,506
Total.	10,543,191	.....	4,315,219	.....	2,939,349	.....	284,541	290,033	.....	327,205	.....	.....	2,386,844
1851	691,784	.....	132,020	.....	440,441	.....	31,928	25,923	.....	20,546	.....	.....	40,926
1852	1,018,285	.....	401,215	.....	457,620	.....	30,389	22,287	.....	49,155	.....	.....	57,619
1853	1,259,313	.....	362,052	.....	622,540	.....	11,104	20,396	.....	69,607	.....	.....	173,614
1854	1,515,584	.....	502,387	.....	684,483	.....	54,353	52,420	.....	40,795	.....	.....	181,146
1855	2,083,854	.....	1,336,634	.....	.....	.....	104,492	127,191	.....	38,460	.....	.....	477,077
1856	1,607,340	.....	1,145,178	.....	.....	.....	32,333	17,531	.....	46,813	.....	.....	365,485
1857	575,063	.....	305,392	.....	.....	.....	6,754	11,819	.....	22,616	.....	.....	228,482
1858	396,204	.....	40,024	.....	126,060	.....	5,216	6,813	.....	10,012	.....	.....	208,139
1859	331,072	.....	25,668	.....	142,673	.....	2,131	2,638	.....	1,583	.....	.....	156,379
1860	1,064,692	.....	64,649	.....	465,592	.....	5,841	3,015	.....	27,618	.....	.....	497,977

[1]Annual Reports on Commerce and Navigation, United States Treasury Department.

TABLE 3.—ANNUAL EXPORTS OF FOREIGN MANUFACTURES OF COTTON, 1821 TO 1900, INCLUSIVE[1]—Continued.

YEARS.	Total value.	CLOTHS.				Value of clothing ready-made and other wearing apparel, not including knit goods.	Value of embroideries, laces, insertings, trimmings, and of lace and window curtains.	Value of knit goods made on knitting machines or knit by hand.	THREADS (NOT ON SPOOLS), YARNS, WARPS, OR WARP-YARNS.		JEANS, DENIMS, AND DRILLINGS.		All other manufactures.
		Bleached and unbleached.		Printed, painted, and colored.									
		Square yards.	Value.	Square yards.	Value.				Pounds.	Value.	Square yards.	Value.	Value.
Total.	$5,710,385	8,640,053	$834,314	10,932,705	$1,428,134	$108,061	$37,202	$58,362	.....	$18,267	788,805	$131,762	$3,094,283
1861	323,897	.....	32,301	.....	67,934	.....	3,100	983	.....	1,683	.....	.....	217,896
1862	341,324	.....	.....	.....	.....	.....	11,410	.....	.....	.....	.....	.....	329,914
1863	714,358	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	714,358
1864	372,428	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	372,428
1865	681,916	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	681,916
1866	434,672	395,018	60,323	259,011	41,472	60,557	11,872	2,914	.....	.....	19,977	3,085	254,449
1867	409,304	582,620	67,923	545,725	80,560	19,324	2,126	1,283	.....	1,519	158,817	28,124	208,445
1868	949,411	2,428,075	227,165	3,750,009	447,805	28,180	8,694	22,961	.....	15,065	374,516	62,419	137,122
1869	541,599	1,790,546	155,668	2,293,584	297,263	.....	.....	9,854	.....	.....	88,981	11,102	67,712
1870	941,476	3,443,794	290,934	4,084,376	493,100	.....	.....	20,367	.....	.....	146,514	27,032	110,043
Total.	9,991,780	31,068,319	2,417,108	47,472,719	5,012,219	.....	.....	185,302	.....	.....	3,369,768	568,225	1,808,935
1871	1,703,029	6,429,725	493,353	8,954,387	996,571	.....	.....	22,078	.....	.....	262,965	45,377	145,650
1872	1,380,048	4,200,048	330,543	6,666,891	722,742	.....	.....	14,163	.....	.....	542,099	89,658	222,942
1873	1,456,946	1,355,951	351,041	6,549,228	727,919	.....	.....	20,878	.....	.....	540,107	99,008	258,100
1874	1,218,092	3,505,641	278,897	4,884,367	549,164	.....	.....	21,279	.....	.....	445,571	81,916	286,836
1875	997,187	2,801,844	223,343	4,619,899	501,265	.....	.....	26,913	.....	.....	429,931	72,227	173,439
1876	908,612	2,286,609	191,526	4,400,036	456,471	.....	.....	24,520	.....	.....	426,552	69,505	166,590
1877	699,450	2,634,940	208,899	3,328,721	325,639	.....	.....	11,388	.....	.....	135,874	22,132	131,392
1878	551,923	1,848,025	129,607	2,859,015	260,345	.....	.....	17,987	.....	.....	118,209	19,443	124,541
1879	386,870	773,167	57,803	1,617,072	147,449	.....	.....	9,459	.....	.....	203,672	28,016	144,143
1880	689,632	2,232,369	152,096	3,593,103	324,654	.....	.....	16,637	.....	.....	264,788	40,943	155,302
Total.	2,851,339	4,945,717	339,128	7,922,925	726,036	34,408	108,294	73,664	15,957	5,180	907,444	139,214	1,425,415
1881	679,075	2,451,652	166,594	2,748,863	247,507	.....	.....	14,707	.....	.....	341,680	52,468	197,799
1882	498,312	1,833,175	128,107	1,479,381	134,633	.....	.....	16,628	.....	.....	261,408	43,979	174,965
1883	270,144	462,887	33,200	388,899	37,125	.....	.....	5,376	.....	.....	304,356	42,767	151,676
1884	167,210	27,437	2,602	479,973	35,052	3,420	7,496	6,852	5,014	2,356	.....	.....	109,422
1885	293,381	2,944	206	237,326	20,718	14,504	28,650	10,103	5,209	1,044	.....	.....	218,156
1886	435,735	493	26	1,830,765	178,878	1,245	18,341	4,723	2,135	598	.....	.....	231,924
1887	160,718	29,869	1,564	236,943	24,459	764	27,939	3,956	934	411	.....	.....	101,625
1888	128,343	65,880	2,787	141,199	13,388	1,981	9,450	1,091	2	1	.....	.....	99,645
1889	83,779	25,326	1,745	180,620	12,508	4,756	8,913	4,679	352	114	.....	.....	51,964
1890	134,642	46,054	2,297	198,956	21,768	7,728	8,405	5,549	2,311	656	.....	.....	88,239
Total.	2,106,172	161,919	9,283	3,980,825	342,166	186,013	297,818	103,062	80,074	24,723	.....	.....	1,143,107
1891	129,632	7,052	401	196,473	18,800	6,384	6,897	6,022	4,557	1,922	.....	.....	89,206
1892	141,263	720	40	298,965	29,044	7,708	19,097	9,244	.....	.....	.....	.....	76,130
1893	161,429	10,500	478	223,376	21,167	8,504	55,083	3,628	1,700	464	.....	.....	72,105
1894	212,380	18,395	1,384	324,256	32,892	21,735	25,746	11,516	26,161	5,524	.....	.....	113,583
1895	177,604	20,955	1,066	242,899	22,188	22,968	40,992	9,279	3,544	954	.....	.....	80,157
1896	291,162	60,144	2,986	781,861	58,775	41,665	51,608	19,753	6,670	2,875	.....	.....	113,500
1897	235,212	6,237	292	313,196	28,614	29,992	26,245	17,610	1,509	590	.....	.....	131,869
1898	290,036	1,525	107	1,012,910	78,125	16,654	28,166	8,330	3,140	1,241	.....	.....	157,413
1899	179,351	18,901	1,104	215,449	19,649	12,417	14,912	7,324	3,602	1,244	.....	.....	122,701
1900	288,103	17,490	1,425	371,440	32,912	17,986	29,072	10,356	29,191	9,909	.....	.....	186,443

[1] Annual Reports on Commerce and Navigation, United States Treasury Department.

THE GENERAL PROGRESS OF THE INDUSTRY.

Table 4 presents the summary of the cotton manufacture from 1840 to 1900, inclusive. The figures for 1900 do not include the manufacture of cotton small wares, which branch of the industry has been separately treated at the Twelfth Census, and is made the subject of a special chapter at the conclusion of the report on cotton manufactures.

TABLE 4.—COMPARATIVE SUMMARY, COTTON GOODS, 1840 TO 1900, WITH PER CENT OF INCREASE FOR EACH DECADE.

	DATE OF CENSUS.							PER CENT OF INCREASE.					
	1900	1890	1880	1870	1860	1850	1840	1890 to 1900	1880 to 1890	1870 to 1880	1860 to 1870	1850 to 1860	1840 to 1850
Number of establishments	973	905	756	956	1,091	1,094	1,240	7.5	19.7	[1]20.9	[1]12.4	[1]0.3	[1]11.8
Capital	$460,842,772	$354,020,843	$208,280,346	$140,706,291	$98,585,269	$74,500,931	$51,102,359	30.2	70.0	48.0	42.7	32.3	45.8
Salaried officials, clerks, etc., number	4,713	[2]2,709	[3]	[3]	[3]	[3]	[3]	74.0	.....	.....	.....	.....	.....
Salaries	$7,123,574	[2]$3,464,734	[3]	[3]	[3]	[3]	[4]	105.6	.....	.....	.....	.....	.....
Wage-earners, average number	297,929	218,876	174,659	135,369	122,028	92,286	72,119	36.1	25.3	29.0	10.9	32.2	28.0
Total wages	$85,126,310	$66,024,538	$42,040,510	$39,044,132	$23,940,108	[3]	[4]	28.9	57.0	7.7	63.1	.....	.....
Men, 16 years and over	134,354	88,837	61,760	42,790	46,859	33,150	[3]	51.2	43.8	44.3	[1]8.7	41.4	.....
Wages	$46,923,365	$33,797,517	[3]	[3]	[3]	[3]	[4]	38.8	.....	.....	.....	.....	.....
Women, 16 years and over	123,709	106,607	84,558	69,637	75,169	59,136	[3]	16.0	26.1	21.4	[1]7.4	27.1	.....
Wages	$32,917,933	$29,165,086	[3]	[3]	[3]	[3]	[4]	12.9	.....	.....	.....	.....	.....
Children, under 16 years	39,866	23,432	28,341	22,942	[3]	[3]	[3]	70.1	[1]17.3	23.5	.....	.....	.....
Wages	$5,285,012	$3,061,935	[3]	[3]	[3]	[3]	[4]	72.6	.....	.....	.....	.....	.....
Miscellaneous expenses	$21,650,141	$16,716,524	[4]	[4]	[4]	[4]	[4]	29.5	.....	.....	.....	.....	.....
Cost of materials used	$173,441,390	$154,912,979	$102,206,347	$111,736,936	$57,285,534	$34,835,056	[4]	12.0	51.6	[1]8.5	95.1	64.5	.....
Value of products	$332,806,156	$267,981,724	$192,090,110	$177,489,739	$115,681,774	$61,869,184	$46,350,453	24.2	39.5	8.2	53.4	87.0	33.5
Active spindles, number	19,008,352	14,188,103	10,653,435	7,132,415	5,235,727	[4]	2,284,631	34.0	33.2	49.4	36.2	.....	.....
Looms, number	450,682	324,866	225,759	157,310	126,313	[4]	[4]	38.7	43.9	43.5	24.5	.....	.....
Cotton consumed, bales	3,639,495	2,261,600	1,570,344	[4]	[4]	641,240	[4]	60.9	44.0	.....	.....	.....	.....
Cotton consumed, pounds	1,814,002,512	1,117,945,776	750,343,981	398,308,257	422,704,975	[4]	[4]	62.3	49.0	88.4	[1]5.8	.....	.....

[1] Decrease.
[2] Includes proprietors and firm members, with their salaries; number only reported in 1900, but not included in this table. (See Table 24.)
[3] Not reported separately.
[4] Not reported.

The classification of cotton goods applies in all the statistics for the Twelfth Census to results in those establishments only in which the chief industry is the spinning of cotton yarn and the weaving of piece goods—one or both. The designation of cotton small wares applies to establishments chiefly engaged in the manufacture of the following classes of articles: Shoe and corset lacings, lamp and stove wicks, tapes, webbings (other than elastic), lace edgings, dress and upholstery trimmings.

In order to preserve the basis for comparison with statistics of former censuses, Table 5 combines the statistics for cotton manufactures and cotton small wares for 1900, and shows the percentage that each is of the total.

Table 5 shows that the totals for capital, wages, cost of materials, and value of products for cotton small wares represented about 2 per cent of the totals for the entire cotton manufactures, and for the number of establishments about 8 per cent.

At the census of 1890 the average capital for the 905 establishments, which included both cotton goods and cotton small wares, was $391,182. In 1900 for the 1,055 establishments of both classes the average capital was $442,882; for the 973 establishments reported as cotton goods only it was $473,631; and for the 82 classified as cotton small wares it was $78,017.

TABLE 5.—COMBINED SUMMARY, COTTON GOODS AND COTTON SMALL WARES: 1900, WITH PERCENTAGE THAT EACH ITEM IS OF TOTAL.

	Total.	Cotton goods.	Cotton small wares.	PER CENT OF TOTAL.	
				Cotton goods.	Cotton small wares.
Number of establishments	1,055	973	82	92.2	7.8
Capital	$467,240,157	$460,842,772	$6,397,385	98.6	1.4
Salaried officials, clerks, etc., number	4,902	4,713	189	96.1	3.9
Salaries	$7,350,199	$7,123,574	$226,625	96.9	3.1
Wage-earners, average number	302,861	297,929	4,932	98.4	1.6
Total wages	$86,689,752	$85,126,310	$1,563,442	98.2	1.8
Men, 16 years and over	135,721	134,354	1,367	99.0	1.0
Wages	$47,594,881	$46,923,365	$671,516	98.6	1.4
Women, 16 years and over	126,882	123,709	3,173	97.5	2.5
Wages	$33,746,665	$32,917,933	$828,732	97.5	2.5
Children, under 16 years	40,258	39,866	392	99.0	1.0
Wages	$5,348,206	$5,285,012	$63,194	98.8	1.2
Miscellaneous expenses	$22,112,678	$21,650,144	$462,534	97.9	2.1
Cost of materials used	$176,551,527	$173,441,390	$3,110,137	98.2	1.8
Value of products	$339,200,320	$332,806,156	$6,394,164	98.1	1.9
Active spindles, number	19,050,952	19,008,352	42,600	99.8	0.2
Looms, number	455,752	450,682	5,070	98.9	1.1
Cotton consumed, bales	3,646,708	3,639,495	7,213	99.8	0.2
Cotton consumed, pounds	1,817,643,390	1,814,002,512	3,640,878	99.8	0.2

With this general explanation of the new system of classification, it will be understood that all the tables hereafter given, except Table 23, make the comparison

between cotton goods alone in 1900 and cotton manufactures generally prior to this census. It is believed that the slight difference of 2 per cent will not seriously impair their general usefulness for purposes of comparison or may be allowed for by those who desire more exact figures.

GEOGRAPHIC DISTRIBUTION OF THE INDUSTRY.

The following tabular statement will bring to light the most interesting and the most important fact relating to the growth of the cotton-manufacturing industry during the decade 1890–1900:

SECTIONAL DISTRIBUTION OF ESTABLISHMENTS.

GEOGRAPHIC DIVISIONS.	1900	1890	1880
New England states	332	402	439
Middle states	225	239	139
Southern states	400	239	161
Western states	16	25	17
Total	973	905	756

The decrease in the number of establishments in the New England states is more apparent than real. It results partly from the elimination of certain mills from the classification as "cotton manufactures," already mentioned, and partly from the consolidation of establishments under one management. The same reasons account fully for the decline in the number of establishments in the Middle states: New York, New Jersey, Pennsylvania, Delaware, and Maryland. The manufacture has never existed on a considerable scale in the Western states. Comparative distance and inaccessibility with respect to the supply of raw cotton, distance from the commercial cities which are the headquarters of the dry goods trade, and difficulty in procuring the requisite trained labor—these and other causes have hitherto rendered the West an undesirable location for cotton mills, which need for economical operation cheap transportation of raw material, cheap fuel or unfailing waterpower, and nearness to large markets. The cotton manufacture, moreover, is essentially gregarious, and enjoys the greatest prosperity where it is carried on by large establishments or by large groups of small mills.

The growth of the industry in the South is the one great fact in its history during the past ten years. It will be seen that in 1880 there were, in that part of the country, 161 establishments only which made reports to the census; in 1890 there were only 239, an increase of 78, or 48.4 per cent; and in 1900 there were 400 separate establishments, an increase from 1890 of 161, or 67.4 per cent. A scrutiny of the returns by states shows that substantially the whole increase in the South has been in the 4 states of North Carolina, South Carolina, Georgia, and Alabama. The number of establishments in these 4 states was 119 in 1880, 191 in 1890, and 355 in 1900. In the other states of the Southern group the number was 42 in 1880, 48 in 1890, and 45 in 1900.

It would be revealing but a part of the truth to rest the statement of Southern industrial expansion upon the number of establishments; for in the decade 1880–1890 the number of spindles in the four leading Southern states increased almost twofold, from 422,807 to 1,195,256; and the average number of spindles to a mill increased from 3,553 to 6,258. In the decade from 1890 to 1900 the progress has been at an even greater ratio, although the basis of the calculation is larger, for the total number of spindles is 3,791,654, the numerical increase 2,596,398, the percentage of increase 217, and the average number of spindles to a mill has become 10,651. The subsequent tables in this report will give abundant evidence of the expansion of the Southern cotton industry in all directions—in capital, consumption of material, employment of labor, and quantity and value of product.

Speaking broadly, the cotton manufacturing industry did not exist in the South before the Civil War, and it existed only on the most restricted scale before 1880. There are now single establishments in Massachusetts which pay annually a larger sum in wages than the entire cost of labor in Southern cotton mills in 1880. The mills were small, equipped with antiquated machinery, engaged in spinning the coarsest numbers only, and in producing from cotton grown in the neighborhood the stout fabrics used for clothing by the negroes. It is probably not an exaggeration to say that prior to 1880 there was not a mill south of the latitude of Washington that would be classed as an efficient modern cotton factory, even according to the standard of that time. Before the Civil War the people of the South were almost exclusively engaged in agricultural pursuits. The ruling classes looked with disfavor upon manufactures and discouraged the introduction of the industrial arts save as they were necessary to meet local wants.

After the war closed it was some years before the people had recovered sufficiently from the disaster to undertake manufacturing. There had been attempts in the direction of cotton spinning and weaving before 1880, but the cotton exposition in Atlanta, in 1881, gave the industry an impetus which it has never since lost. The possibilities of the region were shown when the governor of Georgia appeared at the fair dressed in a suit of clothes made of cottonade manufactured on the grounds from cotton which had been picked from the stalk on the morning of the same day, in the sight of the visitors to the fair. That the local product of cotton could be worked up into finished cloth without transportation to a distant manufacturing town, together with the fact that the region had abundance of unemployed labor of a class similar to that which in the early days operated the mills of Waltham, Lowell, and

Manchester, brought before the people the vision of a new source of individual and public wealth to which they had previously been blind.

Once the opportunity had been presented to them the chance was eagerly seized, and all who were able to do so contributed to make the new enterprise successful. The press urged it upon those who had capital to invest, hailed joyfully every manufacturing project, and made much of every successful establishment. Municipal aid was given in the shape of exemption from taxation for a term of years. The railroads favored the scheme by arranging their freight schedules so as to encourage Southern manufacturers. The factories first established under the new régime showed large profits, and thus attracted more capital to the new industry. The advantages of the Southern country for cotton manufacturing began to attract attention in the North; and in many cases corporations already established increased their capital and built new mills in the South Atlantic states.

The earliest Southern enterprises were not in all cases begun as first-class establishments. Some of them were equipped with discarded machinery from Northern mills. But the manufacturers quickly learned the lesson that there is no industry in which profits are more directly proportioned to the perfection and speed of the machinery than in the spinning and weaving of cotton; and the old spindles and looms were speedily replaced with others of the newest pattern. A great proportion of the mills built and started within the past decade have been thoroughly up to date in all respects. In fact some improvements in mill construction are to be found in that section, which are not yet introduced in the manufacturing regions of the North. The first factory operated wholly by electricity, without shafting or belts, was located in the South, and until near the time of the writing of this report it was the only factory so equipped. By the use of electrical power it is possible to place the mill on high ground at a suitable distance from mill race and water wheel, and thus to secure accessibility, the health of operatives, and other benefits which could not be enjoyed when it was necessary to put the foundations of the mill below the foot of the waterfall.

The growth of the manufacturing industry in the South has been fairly continuous during the past ten years. How large it has been the figures show. For the most part the product of the region has been coarse or medium goods, as is usually the case in the early stages of the industry. But not a few mills have been constructed to make yarns of the higher medium numbers and cloth which approaches the lower limit of those classed as fine. A considerable part of the product of the region is exported. The industry is now important enough in the 4 states of North Carolina, South Carolina, Georgia, and Alabama to consume nearly one-third of the crop of cotton grown in those states; and both North Carolina and South Carolina spin more than half the cotton grown within their limits.

The growth of the industry in the South has been remarkably steady. As is commonly the case with enterprises of this nature, it has been attended with not a little public excitement; more mills have been projected than have been built; some have been erected which their projectors would not have erected had they studied the matter carefully before entering upon the experiment. But the failures have been few, and upon the whole the return upon investment in Southern cotton mills has greatly exceeded that upon factories in the North. The fact that after a phenomenal growth during more than twenty years the expansion of old mills and the erection of new ones are still going on in the South is ample proof of the success of the enterprise.

The following table, made up from files of the New York Commercial and Financial Chronicle, presents a view of the annual increase in the number of spindles in the states south of the District of Columbia during the past twenty years. The Chronicle is recognized as among the best authorities upon the cotton crop and its distribution. Its statements for the first few years of the period covered were admittedly estimates; but from the year 1888 they are based upon actual returns from the Southern mills made directly to the Chronicle. For the census years, the census figures are substituted.

SPINDLES IN SOUTHERN MILLS, AND THEIR CONSUMPTION OF COTTON.

YEARS.	Number of spindles.	Bales of cotton used.
1880–81	610,000	205,000
1881–82	680,000	238,000
1882–83	860,000	331,000
1883–84	1,100,000	334,000
1884–85	1,150,000	266,000
1885–86	1,200,000	340,000
1886–87	1,225,000	397,929
1887–88	1,177,901	443,373
1888–89	1,344,576	486,603
1889–90	1,554,000	526,856
1890–91	1,756,047	605,916
1891–92	1,938,524	681,471
1892–93	2,082,197	733,701
1893–94	2,167,242	723,329
1894–95	2,379,281	853,352
1895–96	2,770,284	915,810
1896–97	3,197,545	1,024,482
1897–98	3,574,754	1,227,939
1898–99	3,832,201	1,400,026
1899–1900	4,298,188	1,477,775

Although there has been a surprising growth of the industry in the Southern states, yet it still remains true, as it has been true ever since Samuel Slater set in motion the first spindles operated by power in this country at Pawtucket, R. I., in 1791, that the largest and densest concentration of cotton manufacturing in the United States is in southern New England. A list is printed in the American State Papers[1] of the cotton mills within 30 miles of the town of Providence,

[1] Finance, Vol. III.

R. I., in November, 1809. The mills are enumerated in the chronological order of their establishment, beginning with the Pawtucket mill of Almy, Brown & Slater. Twenty-seven mills are mentioned as having in the aggregate 20,406 spindles "now in operation," but as having, including these, 34,900 spindles "which might be employed." There were also 14 other mills, all established in 1809, with 23,600 spindles, which were evidently not yet in operation. One mill, a Titan for those times, contained 10,000 spindles. The average of the 41 factories, counting their greatest capacity, was less than 1,500 spindles, and all combined they did not greatly exceed the average of one Fall River mill of the present time; yet they constituted the greatest concentration of the industry as it existed ninety years before the Twelfth Census was taken. In the year 1900 there were, within the same area, 7,209,235 spindles, as is shown by the following table:

TABLE 6.—NUMBER OF SPINDLES IN COTTON MILLS WITHIN 30 MILES OF PROVIDENCE, R. I.

LOCATION OF ESTABLISHMENTS.	Producing spindles (not including twisting, or doubling spindles).
Total	7,209,235
Brooklyn, Windham county, Conn	59,864
Killingly, Windham county, Conn	85,808
Plainfield, Windham county, Conn	74,736
Putnam, Windham county, Conn	106,800
Thompson, Windham county, Conn	111,688
Woodstock, Windham county, Conn	1,200
Voluntown, New London county, Conn	16,500
Bristol county, Mass	4,561,129
Blackstone, Worcester county, Mass	43,548
Grafton, Worcester county, Mass	62,344
Northbridge, Worcester county, Mass	89,264
Oxford, Worcester county, Mass	5,600
Sutton, Worcester county, Mass	54,496
Uxbridge, Worcester county, Mass	11,172
Webster, Worcester county, Mass	81,000
Bristol county, R. I	102,104
Hopkinton, Washington county, R. I	20,194
Kent county, R. I	472,406
Newport county, R. I	43,008
Providence county, R. I	1,206,374

In round numbers one-third of all the spindles in the United States are in the factories within that small area. It was remarked in the report on the Eleventh Census that 29.61 per cent of all the cotton spindles were operated in the two adjoining counties of Bristol, Mass., and Providence, R. I. The percentage has been maintained. It is now 30.3, and it greatly exceeds that of any other two counties. Indeed, the spindles of Providence county, the smaller of the two, outnumbered those of any Southern state except South Carolina. But the percentage of New England as a whole has suffered a considerable decline. In 1870 these six states had 77 per cent of all the spindles; in 1880 they had 81 per cent; in 1890 there was a decline to 76 per cent; and the percentage in 1900 was but 67.6.

CAPITAL.

Table 7 is a comparative summary, by geographic divisions, of the capital invested in the cotton manufacture in 1900, compared with 1890, with percentages of increase for the decade.

Table 7 shows that the total capital employed has increased 30.2 per cent. Taking the country as a whole, there is a small decrease in the reported value of the land. This is explained by the fact that in a great number of cases the land upon which factories are placed has but a nominal value; indeed, it had scarcely any value before the factories were erected and would be wholly unsalable if the buildings were removed. In these circumstances the officers making returns can only estimate the value, and estimates made at intervals of ten years may be expected to vary. There appears to have been an absolute decrease in the value of land in New England attached to cotton-manufacturing establishments; and the increase in land value in Southern states is 30.8 per cent, although the whole value of the plant has increased 131.4 per cent.

TABLE 7.—COMPARATIVE SUMMARY, COTTON GOODS, CAPITAL, BY GEOGRAPHIC DIVISIONS, WITH PERCENTAGES OF INCREASE: 1890 AND 1900.

GEOGRAPHIC DIVISIONS.	Year.	Total.	Land.	Buildings.	Machinery, tools, and implements.	Cash and sundries.
United States	1900	$460,842,772	$22,546,549	$91,621,757	$181,009,280	$165,665,186
	1890	354,020,843	23,225,097	69,742,664	138,025,806	123,027,276
Per cent of increase		30.2	[1] 2.9	31.4	31.1	34.7
New England states	1900	272,668,914	14,820,398	55,523,593	99,093,175	103,231,838
	1890	243,153,249	17,074,774	47,871,383	91,666,375	86,540,717
Per cent of increase		12.1	[1] 13.2	16.0	8.1	19.3
Middle states	1900	59,078,820	3,277,033	11,327,917	20,779,919	23,693,951
	1890	51,676,249	2,580,935	10,124,364	20,306,550	18,664,400
Per cent of increase		14.3	27.0	11.9	2.3	26.9
Southern states	1900	124,532,864	4,250,540	23,741,094	59,179,798	37,361,432
	1890	53,827,303	3,248,968	10,590,952	24,079,920	15,907,463
Per cent of increase		131.4	30.8	124.2	145.8	134.9
Western states	1900	4,562,174	198,668	1,029,153	1,956,388	1,377,965
	1890	5,364,042	320,420	1,155,965	1,972,961	1,914,696
Per cent of increase		[1] 14.9	[1] 38.0	[1] 11.0	[1] 0.8	[1] 28.0

[1] Decrease.

In view of the current discussion as to the capitalization of corporations it becomes interesting to note that the objections to the practice of overcapitalization can not justly be urged against cotton-manufacturing establishments. The form of ownership of such establishments is to a remarkable degree the corporate. Of the 973 separate establishments here reported, 708 are classed as corporations, 142 are individual, and 123 are partnerships or firms. Even this does not show the actual situation definitely, since 56 of the individual and 68 of the partnership establishments in Pennsylvania, and most of them in the city of Philadelphia, are weaving factories only, and individually of moderate importance. Outside of Pennsylvania there are 678 corporations, 86 individual, and 55 partnership establishments. With reference to the two latter classes, there can, of course, be no question of overcapitalization. The capital they report is simply that employed in their business. But the incorporated companies have a share capital to an amount specified in their respective charters. Table 8 shows, by geographic divisions, the capital for corporations as reported at the census of 1900, compared with the nominal capital of corporations as represented by their capital stock.

TABLE 8.—COMPARISON OF CAPITAL OF CORPORATIONS, AS REPORTED AT CENSUS, WITH CAPITAL STOCK, BY STATES AND GEOGRAPHIC DIVISIONS: 1900.

STATES.	Capital as reported at census.	Capital stock.
United States	$385,863,827	$204,157,914
New England states	238,502,315	128,703,500
Maine	20,974,669	11,630,000
New Hampshire	28,713,786	17,725,000
Vermont	1,696,331	1,050,000
Massachusetts	135,873,779	71,088,500
Rhode Island	30,466,097	15,367,000
Connecticut	20,777,653	11,843,000
Middle states	33,521,797	15,205,000
New York	12,455,548	5,046,000
New Jersey	12,503,262	5,145,000
Pennsylvania	5,314,968	2,734,000
Maryland	3,248,019	2,280,000
Southern states	109,589,031	57,101,352
Virginia	4,338,206	2,886,700
North Carolina	25,840,465	14,364,500
South Carolina	36,275,727	17,835,200
Georgia	21,826,464	10,874,952
Kentucky	1,867,605	1,325,000
Tennessee	3,105,095	1,634,000
Alabama	10,509,595	5,300,000
Mississippi	2,199,249	1,231,000
Arkansas	249,828	200,000
Louisiana	1,716,688	850,000
Texas	1,660,109	600,000
Western states	4,250,684	3,148,062
Ohio	56,692	25,000
Indiana	1,532,586	800,000
Illinois	831,047	500,000
Wisconsin	455,235	375,000
Missouri	165,500	248,062
Nebraska	190,819	150,000
Colorado	647,805	250,000
California	371,000	800,000

NOTE.—In the foregoing table the nominal capital stock reported of the companies now united in the three industrial combinations is that of the separate companies before the amalgamation. The present capital stock is larger by $15,200,000, and the total capital stock for the whole country is $219,357,914. The addition can not conveniently be shown by states, inasmuch as the plants of two of the three combinations are located in several states. Moreover, the three industrial combinations have issued an aggregate amount of $26,500,000 bonds.

It appears from Table 8 that not only in the United States as a whole, and in each of the geographical divisions, but in every individual state, except Missouri and California, the actual invested capital exceeds the par value of the share capital. Undoubtedly a considerable amount, many millions of dollars in the aggregate, of the capital reported to the census represents borrowed money; but after making the largest reasonable allowance for this item there must remain an excess of at least 25 per cent of assets over the nominal value of the share capital. Very few cotton-manufacturing establishments have a bonded debt.

In this connection it may be remarked that the system of industrial combination, commonly known as the "trust," has not seriously invaded the cotton-manufacturing industry. There were in 1900 only three such combinations: The New England Cotton Yarn Company, which produces but a small fraction of the yarns made for sale; the Mount Vernon-Woodberry Cotton Duck Company, which produces a considerable part of the sail duck made in the country; and the American Thread Company, which has combined several of the large establishments which produce sewing thread. The total value of the plants and miscellaneous items of capital of all the establishments controlled by these three industrial combinations is $31,077,609. Their combined capital stock is $33,000,000, and the total of their bonded debt is $26,500,060.

EMPLOYEES AND WAGES.

In 1900 the average number of employees in the cotton industry (excluding cotton small wares), including officers and clerks, was 302,642, an increase of 81,057, or 36.54 per cent over the total for cotton goods and cotton small wares in 1890. Of this increase more than 60,000, or three-fourths of the whole, were in the Southern states. The figures which show the number and compensation of officers, clerks, and superintendents require no discussion. They are useful merely for the completion of the statistics and to bring out in its true light the magnitude of the industry. The real interest lies in the facts regarding those who are more strictly classified as wage-earners, the operatives in the mills. The importance of the figures relating to them is enhanced by the circumstance that the cotton-manufacturing industry is typical of the factory system in its highest form and on the largest scale. There is scarcely another industry that approaches it in the numbers of hands employed within mills; and the numbers of men and women employed are more nearly equal than is the case with any other industry of a magnitude to be compared with this.

Table 9 shows the number of wage-earners, men, women, and children, by geographical divisions, at the censuses of 1880, 1890, and 1900; and Table 11 shows the percentages of men, women, and children of total wage-earners, by geographic divisions, for 1880, 1890, and 1900.

TABLE 9.—COTTON GOODS, WAGE-EARNERS, AVERAGE NUMBER OF MEN, WOMEN, AND CHILDREN, BY GEOGRAPHIC DIVISIONS: 1880 TO 1900.

GEOGRAPHIC DIVISIONS.	TOTAL.			MEN, 16 YEARS AND OVER.			WOMEN, 16 YEARS AND OVER.			CHILDREN, UNDER 16 YEARS.		
	1900[1]	1890	1880	1900	1890	1880	1900	1890	1880	1900	1890	1880
United States	297,929	218,876	172,544	134,354	88,837	59,685	123,709	106,607	84,539	39,866	23,432	28,320
New England states	162,294	147,359	125,779	78,217	63,749	45,521	73,258	73,445	62,554	10,819	10,165	17,704
Middle states	34,843	31,841	28,118	14,473	11,580	8,919	16,056	16,240	13,185	4,314	4,021	6,014
Southern states	97,494	36,415	16,317	40,528	12,517	4,633	32,528	15,083	7,587	24,438	8,815	4,097
Western states	3,298	3,261	2,330	1,136	991	612	1,867	1,839	1,213	295	431	505

[1] Does not include cotton small wares in 1900.

TABLE 10.—COTTON GOODS, WAGE-EARNERS, PERCENTAGE OF MEN, WOMEN, AND CHILDREN, BY GEOGRAPHIC DIVISIONS: 1880 TO 1900.

GEOGRAPHIC DIVISIONS.	MEN. Per cent of all wage-earners.			WOMEN. Per cent of all wage-earners.			CHILDREN. Per cent of all wage-earners.		
	1900	1890	1880	1900	1890	1880	1900	1890	1880
United States	45.1	40.6	34.6	41.5	48.7	49.0	13.4	10.7	16.4
New England states	48.2	43.3	36.2	45.1	49.8	49.7	6.7	6.9	14.1
Middle states	41.5	36.4	31.7	46.1	51.0	46.9	12.4	12.6	21.4
Southern states	41.6	34.4	28.4	33.4	41.4	46.5	25.0	24.2	25.1
Western states	34.4	30.4	26.3	56.6	56.4	52.0	9.0	13.2	21.7

Tables 9 and 10 show that of the men, women, and children employed, first, the actual numbers of each class have increased during the past ten years, and, second, the number of men has increased much more rapidly than the number either of women or of children.

In the whole country there has been a numerical increase from 1890 to 1900 of 45,517 men, of 17,102 women, and of 16,434 children. There was an increase in the number of men in every section; a very slight decrease in the number of women in every division except the Southern states, and an increase in the number of children in the South, whereas in the rest of the country the number was nearly stationary. Since, in an expanding industry, the numbers of all classes ought to increase, a better medium for the sociological study of the condition of affairs is afforded by the second table, from which it appears that there is now for the first time a preponderance of the proportion of men employed, over the women. The proportion of men for the whole country increased from 40.6 per cent in 1890 to 45.1 per cent in 1900; the proportion of women declined from 48.7 per cent in 1890 to 41.5 per cent in 1900; the proportion of children advanced from 10.7 per cent to 13.4 per cent.

The returns for the Tenth Census afford the means of discovering that with a slight modification the readjustment of labor conditions has been going on for at least twenty years. Between 1880 and 1890 there was an increase of 6 men in every group of 100 mill operatives. The number of women in the group remained unchanged, owing to the partial discontinuance of the practice of employing children in all parts of the country except the South. In the mills of New England, which then formed a larger fraction of the total than they do now, the number of children in mills was reduced from 14 in every 100 to 7. Between 1890 and 1900 occurred the marvelous expansion of the industry in the South, with the usual result of such an event, a great demand for labor and the employment of whole families. The proportion of children was slightly increased there, by 1 in 100, but the proportion of women diminished by 8, and that of men increased by 7, in each 100. In New England the proportion of men increased 5, that of women decreased 5, in each 100, and the proportion of children remained stationary.

The important fact resulting from an examination of all these proportions is that the tendency is more and more to the employment of men, which, looking at the matter from the social point of view, is highly desirable, in that it diminishes the use of the labor of women in factory service, and doubly desirable in discontinuing the employment of child labor. In this last respect reform has not yet reached the Southern mills, where the supply of labor is not equal to the demand. But the evils of the system of employing children are fully recognized, an agitation for its abandonment is in progress, and no doubt the coming decade will see a substantial diminution of it.

The explanation of the generally increased employment of men is obvious. The chief reasons are two: First, that the operation of some of the modern machines requires the care of men, because it is beyond the physical and nervous capacity of women. For example, the improved high-speed and automatic looms, many of which are put under the charge of one weaver, can be operated most efficiently by men. Moreover, there has undoubtedly been a decrease in the number of women employed as mule spinners. The second cause of the change in the relative proportion of men and women, which, for reasons presently to be stated, is largely influential in the North, is itself a result of a generally improved condition of labor. Whereas formerly it was the custom for an entire family, or, at least, several of its members, to be employed in a mill, the father now earns enough to relieve the mother and some of the children of the necessity of going into the factory; or, perhaps, the mother and the elder daughters find other employment in the shops and offices

which manufacturing industry attracts to a community. It is not suggested that the change is one universally to be observed. Possibly the tendency is so slight that the fact of such a change going on can be discovered only when the statistics are studied in a large way. Nevertheless, the cases are sufficiently numerous to justify the assignment of this as one cause of the gradual change that is taking place in the proportion of men and women in the industry as a whole.

The change has not yet perceptibly affected the South. There the labor conditions are different. The industry is growing at a wonderful rate. The help employed is chiefly local. Whole families in that region enter the factories, because in no other way can the demand for labor be satisfied. Consequently the changes in the proportion of men, women, and children employed are largely fortuitous. Roughly speaking, there were three times as many men, twice as many women, and nearly three times as many children employed in Southern mills in 1900 as there were in 1890. The numerical increase was 28,011 men, 17,445 women, and 15,623 children. Manufacturers took whom they could get for operatives in the new mills. The employment of children was not a matter of choice but of necessity, and, economically, is a losing rather than a profitable system; for more than the saving in the dollars and cents of their wages is lost when the quantity and quality of their work are considered.

SKILLED OPERATIVES.

It was intended to make a complete canvass of the spinners and weavers employed in the cotton mills of the country, classified as men, women, and children. Owing to a defect in the form of the inquiry, which was not discovered in season to make a correction, there is reason to believe that some of the numbers were incorrectly returned, and the full table is not presented. Some facts which are trustworthy were, nevertheless, obtained. It was ascertained that during the census year there were between 5,000 and 6,000 persons employed as mule spinners, of whom about 2,250 were employed in Massachusetts mills, 750 in Rhode Island, 600 in New York, and 350 in Connecticut. About nine-tenths of the mule spinners were men. On the other hand, of about 43,000 frame spinners, only about one-sixth were men, and five-sixths were women and children.

The report of the number of weavers is entitled to more confidence than that of spinners, but it is not sufficiently accurate to be presented in detail. The number of weavers returned was 91,515, of whom 41,776 were men, 47,941 were women, and 1,798 were children. There are no earlier returns with which to compare these numbers. But it is well known to those conversant with the industry that only a few years ago the weaving of cotton goods was regarded as peculiarly the work of women. The introduction of improved and fast looms has led more and more to the employment of men as weavers. The tendency is so marked that the next enumeration should show the men in a majority.

WAGES.

It is a matter of general experience that wages in cotton mills were higher in 1900 than they were in 1890. It is almost impossible to obtain a true average by applying the rules of arithmetic to magnitudes of such diverse nature as those which represent the numbers of operatives employed and the gross amount paid to them in wages. Moreover the method of ascertaining the average number of persons employed, which was used at the census of 1900, was quite different from that adopted in 1890, and the figures for 1890 are exclusively those for skilled labor.

MISCELLANEOUS EXPENSES.

Table 11 is a comparative summary of miscellaneous expenses, showing the per cent that each item is of the totals for 1890 and 1900.

TABLE 11.—COMPARATIVE SUMMARY, COTTON GOODS, MISCELLANEOUS EXPENSES,[1] 1890 AND 1900, WITH PER CENT WHICH EACH ITEM FORMS OF TOTAL.

	1900		1890	
	Amount.	Per cent of total.	Amount.	Per cent of total.
Total	$20,057,190	100.0	$16,716,524	100.0
Rent of works	691,075	3.4	488,735	2.9
Taxes, not including internal revenue	3,521,606	17.6	2,689,632	16.1
Rent of offices, interest, insurance, and all sundry expenses not hitherto included.	15,844,509	79.0	13,538,157	81.0

[1] Exclusive of contract work.

Table 11 shows that the amount paid for rent of works was exceedingly small when the magnitude of the industry is considered. As against the total value of land and buildings owned in 1900, of $114,168,306, and in 1890, of $92,967,761, there was paid for rent of works by manufacturers who did not own all the plant used, in 1900 the sum of $691,075, and in 1890 the sum of $488,735. Estimating the average rent at 6 per cent, the value of the land and buildings rented would have been $11,517,917 in 1900, and $8,145,583 in 1890, or about one-tenth of the real estate owned at the time of each census.

MATERIALS USED.

COTTON.

The consumption of raw cotton of all kinds, domestic and foreign, in all the textile mills of the country during the census year was 3,872,165 bales, having an

aggregate weight of 1,923,704,600 pounds. The use of cotton by the several textile industries was as follows:

	Bales.	Pounds.
In cotton mills proper	3,639,495	1,814,002,512
In hosiery and knit goods mills	99,518	49,451,301
In woolen mills	80,725	34,967,959
In worsted mills	12,079	5,276,751
In cotton small wares mills	7,213	3,640,878
In carpet mills	3,813	1,943,942
In cordage and twine mills	26,540	13,022,755
In felt and shoddy mills	2,782	1,398,502
Total	3,872,165	1,923,704,600

At the Twelfth Census no inquiry was made which reveals the variety of cotton used, save in respect to the cotton manufacturing industry proper, cotton small wares, and cordage and twine. It may nevertheless be assumed without risk of serious error that in establishments dealing with the wool fiber all the cotton used was the ordinary domestic staple. A certain amount of the cotton consumed in the few hosiery mills which reported spindles was Egyptian, and a small quantity of sea-island cotton was reported by one establishment, which is classified as "cordage and twine," as having been used in the manufacture of sewing thread. Disregarding these exceptions we may make the following classification of the cotton consumed:

	Bales.	Pounds.
Sea-island	47,207	18,442,634
Other domestic	3,748,750	1,849,417,034
Egyptian and other foreign	76,208	55,844,932
Total	3,872,165	1,923,704,600

The figures in the two preceding tables are those which are to be compared with the commercial and official statistics, in which no discrimination is made between the several classes of factories in which the cotton is consumed. Taking first the greatest item, that of ordinary domestic cotton, the report of the New York Commercial and Financial Chronicle—which is generally accepted by manufacturers as the most thorough and accurate—accounts for the taking of 3,792,618 bales, by manufacturers North and South during the crop year 1899–1900. The corresponding census number is 3,748,750 bales. Inasmuch as the commercial returns are for a year beginning September 1, 1899, whereas those of the census are for the year beginning June 1, 1899, and in the case of not a few mills some months earlier, the divergence of the two reports is small and easily to be accepted; and the close approximation of the two, especially when it is remembered that there is a not inconsiderable amount of cotton which is used for purposes other than spinning, is a confirmation of the accuracy of both. Against the census return of 47,207 bales of sea-island cotton used in the mills herein reported, the Chronicle reports 49,543 bales of that variety of cotton left for consumption in the United States after deducting the amount exported from the total crop. This is a still closer correspondence between the two sets of figures. The difference between them is no greater than may easily be explained upon the grounds already mentioned. The imports of foreign cotton during the fiscal year ended June 30, 1900, amounted to 67,398,521 pounds, of which 1,381,463 pounds was reexported. The importation during the calendar year 1899, with which the consumption during the census year corresponded more nearly, was 62,014,809 pounds, and the net importation was 61,296,346 pounds, which exceeded by about 10 per cent the amount reported in the preceding table. It has already been explained that a certain amount—the exact quantity can not be stated—is masked in the returns of cotton-hosiery mills which were not asked to specify the kind of cotton used. Relative to these figures, it should be borne in mind that, whereas, the quantities reported in commercial returns are the gross purchases of material by manufacturers, the census figures are those of cotton which was actually manufactured and which entered into the merchandise reported under the head of products.

In 1900 the consumption of cotton in cotton mills proper was as follows:

	Bales.	Pounds.
Sea-island	47,207	18,442,634
Other domestic	3,516,080	1,739,714,946
Egyptian and other foreign	76,208	55,844,932
Total	3,639,495	1,814,002,512

"OTHER DOMESTIC" COTTON.

The consumption of domestic cotton, other than sea island, in the cotton mills of the country during the census year was 3,516,080 bales, as compared with 2,231,385 bales reported at the census of 1890, an increase of 58 per cent. The average weight of bales was 494.8 pounds. By geographic divisions the consumption of cotton by bales and pounds, and the average weight of bales, was as follows:

GEOGRAPHIC DIVISIONS.	Bales.	Pounds.	Average weight of bales.
New England states	1,719,622	874,011,257	508.3
Middle states	272,947	135,004,971	494.6
Southern states	1,477,775	707,159,521	478.6
Western states	45,736	23,539,197	514.7
Total	3,516,080	1,739,714,946	494.8

The variation shown in the weight of bales between the Northern and the Southern sections of the cotton-spinning industry is in strict accordance with experience. The bales made up from the crop of the Mississippi valley and of Texas are heavier than those of the Atlantic coast states. Spinners in the Carolinas and in Georgia, therefore, relying largely upon the local supply, make use of lighter bales than manufacturers in

the Eastern states, who draw largely upon the Southwest for their raw material. The average weight of bales of the entire cotton crop of the United States during the crop year ending August 31, 1900, was, according to the commercial reports, 503.69 pounds; but the average weight of bales in the Carolinas and Georgia, from which states the bulk of the cotton consumed in the South was derived, was but 489.91 pounds; whereas, the bales of Louisiana and Texas averaged a weight of 514.8 pounds.

Table 12 presents the facts relating to the cotton crop of the United States for twenty-one years, 1880 to 1900, inclusive, as reported by the United States Treasury Department.

TABLE 12.—QUANTITIES OF RAW COTTON PRODUCED, IMPORTED, EXPORTED, AND RETAINED FOR CONSUMPTION, 1880 TO 1900.[1]

YEAR ENDING JUNE 30—	PRODUCTION.		Exports of domestic.	Domestic retained for consumption.	Imports.	Exports of foreign.	Foreign retained for consumption.	Total consumption, domestic and foreign.	Per cent of domestic product exported.
	Annual crop.[2]	Crop in pounds, gross weight.							
	Bales.	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Per cent.*
1880	5,761,252	2,771,797,156	1,822,061,114	949,736,042	3,547,792	234,729	3,313,063	953,049,105	65.73
1881	6,605,750	3,199,822,682	2,191,928,772	1,007,893,910	4,449,866	1,240,576	3,209,290	1,011,103,200	68.47
1882	5,456,048	2,588,240,050	1,739,975,961	848,264,089	4,339,952	1,843,490	2,496,462	850,760,551	67.23
1883	6,949,756	3,405,070,410	2,288,075,062	1,116,995,348	4,081,945	3,238,930	843,015	1,117,838,363	67.20
1884	5,713,200	2,757,544,422	1,862,572,530	894,971,892	7,019,492	1,353,936	5,665,556	900,637,448	67.52
1885	5,706,165	2,742,966,011	1,891,659,472	851,306,539	5,115,680	1,609,260	3,506,420	854,812,959	68.96
1886	6,575,691	3,182,305,659	2,058,037,444	1,124,268,215	5,072,334	1,276,961	3,795,373	1,128,063,588	64.68
1887	6,505,087	3,157,378,443	2,169,457,330	987,921,113	3,924,531	716,371	3,208,160	991,129,273	68.70
1888	7,046,833	3,439,172,391	2,264,120,826	1,175,051,565	5,497,592	203,972	5,293,620	1,180,345,185	65.83
1889	6,938,290	3,439,934,799	2,384,816,669	1,055,118,130	7,973,039	187,959	7,785,080	1,062,903,210	69.33
1890	7,311,322	3,627,366,183	2,471,799,853	1,155,566,330	8,606,049	248,104	8,357,945	1,163,924,275	68.15
1891	8,652,597	4,316,043,982	2,907,358,795	1,408,685,187	20,908,817	447,794	20,461,023	1,429,146,210	67.36
1892	9,035,379	4,506,575,984	2,935,219,811	1,571,356,173	28,663,769	132,777	28,530,992	1,599,887,165	65.13
1893	6,700,365	3,352,658,158	2,212,115,126	1,140,543,332	43,367,952	360,832	43,007,120	1,183,550,452	65.99
1894	7,549,817	3,769,381,478	2,683,282,325	1,086,099,153	27,705,949	1,029,936	26,676,013	1,112,775,166	71.19
1895	9,901,251	5,036,964,409	3,517,533,109	1,519,431,300	49,332,022	771,614	48,560,408	1,567,991,708	69.83
1896	7,157,346	3,592,416,851	2,335,226,385	1,257,190,466	55,350,520	1,188,356	54,162,164	1,311,352,630	65.00
1897	8,757,964	4,397,177,704	3,103,754,949	1,293,422,755	51,898,926	1,188,523	50,710,403	1,344,133,158	70.59
1898	11,199,994	5,677,259,827	3,850,264,295	1,826,995,532	52,660,363	499,684	52,160,679	1,879,156,211	67.82
1899	11,274,840	5,794,767,917	3,773,410,293	2,021,357,624	50,158,158	293,988	49,864,170	2,071,221,794	65.12
1900	9,436,416	4,757,062,942	3,100,583,188	1,656,479,754	67,398,521	1,381,463	66,017,058	1,722,496,812	65.18

[1] Statistical abstract of the United States. U. S. Treasury Department, 1900.
[2] The "annual crop" represents the commercial movement for the years ending August 31, and was furnished by the New York Shipping and Commercial List, the New York Commercial and Financial Chronicle, and the New Orleans Cotton Exchange.

Inasmuch as a very large percentage of the cotton supply is of American origin, this statement of the crop by bales and pounds, and of its distribution, furnishes a measure of the annual increase of the cotton manufacturing industry in the United States, as compared with its increase in the rest of the world. It will be seen that the interval of twenty years made hardly any change in the percentage of the domestic products retained and of that which was exported, the difference being merely an increase of six-tenths of 1 per cent in the amount consumed at home. The ratio varies, of course, from year to year, but on the whole the table shows that the rate of increase of domestic production is equal to that of Great Britain and the continent of Europe.

Table 13 exhibits the quantity, cost, and cost per pound of "other domestic" cotton consumed, by states, in 1880, 1890, and 1900. Inasmuch as the purpose of this table is to show the average cost of cotton, and not to compare quantities consumed—which fact is sufficiently brought out in the preceding tables—the returns for 1900 exclude the consumption in "cotton small wares" establishments, and cover those of cotton mills only, whereas for the two preceding decadal periods "cotton small wares" are included.

TABLE 13.—COTTON GOODS, QUANTITY, AND COST OF DOMESTIC COTTON, OTHER THAN SEA ISLAND, CONSUMED, BY STATES GEOGRAPHICALLY ARRANGED: 1880 TO 1900.

STATES.	1900				1890				1880[1]			
	Bales.	Pounds.	Cost.	Cost per pound (cents).	Bales.	Pounds.	Cost.	Cost per pound (cents).	Bales.	Pounds.	Cost.	Cost per pound (cents).
United States	3,516,080	1,739,714,946	$116,108,879	6.67	2,231,385	1,103,492,910	$174,337,802	10.36	1,570,344	750,343,981	$86,945,725	11.59
New England states	1,719,622	874,011,257	58,329,174	6.67	1,405,637	704,792,220	74,683,860	10.60	1,129,498	541,373,880	63,169,434	11.67
Maine	156,671	79,212,256	5,400,379	6.82	132,504	65,717,252	7,053,168	10.73	112,381	54,185,061	6,234,901	11.51
New Hampshire	271,262	136,805,127	9,394,529	6.87	214,034	107,319,124	11,203,742	10.44	157,673	76,386,499	8,629,063	11.30
Vermont	12,193	6,410,674	385,461	6.01	8,954	4,647,889	498,348	10.72	7,404	3,562,088	458,607	12.87
Massachusetts	1,015,305	517,088,846	33,771,414	6.53	765,773	383,539,221	40,206,887	10.48	574,857	273,718,889	31,107,154	11.36
Rhode Island	170,514	86,712,235	6,074,331	7.01	186,558	94,555,788	10,446,155	11.05	167,480	81,137,172	10,457,770	12.89
Connecticut	93,374	47,782,119	3,303,060	6.91	97,814	49,012,946	5,275,560	10.76	109,703	52,384,171	6,281,939	11.99

[1] Includes sea-island, Egyptian, and other foreign.

TABLE 13.—COTTON GOODS, QUANTITY, AND COST OF DOMESTIC COTTON, OTHER THAN SEA ISLAND, CONSUMED, BY STATES GEOGRAPHICALLY ARRANGED: 1880 TO 1900—Continued.

STATES.	1900				1890				1880[1]			
	Bales.	Pounds.	Cost.	Cost per pound (cents).	Bales.	Pounds.	Cost.	Cost per pound (cents).	Bales.	Pounds.	Cost.	Cost per pound (cents).
Middle states	272,947	135,004,971	$9,327,774	$6.91	251,260	123,630,916	$12,917,244	$10.45	228,729	109,321,428	$13,258,526	$12.13
New York	99,064	50,464,770	3,513,661	6.96	78,171	39,038,689	4,192,105	10.74	64,614	31,656,594	3,981,106	12.58
New Jersey	15,872	8,183,469	541,858	6.62	16,482	8,231,147	905,524	11.00	21,069	9,950,609	1,319,422	13.26
Pennsylvania	74,382	35,083,214	2,521,768	7.19	92,705	41,629,588	4,371,693	9.80	83,997	40,311,809	4,749,428	11.78
Delaware	2,675	1,371,563	106,358	7.75	8,876	4,465,825	475,490	10.65	7,512	3,236,184	427,855	13.22
Maryland	80,954	39,901,955	2,644,129	6.63	55,026	27,265,667	2,972,432	10.90	51,537	24,166,232	2,780,715	11.51
Southern states	1,477,775	707,159,521	46,988,926	6.64	526,856	250,837,646	24,508,776	9.77	182,349	84,528,757	8,890,408	10.52
Virginia	38,118	17,832,465	1,154,215	6.47	22,731	10,616,206	1,080,773	10.18	11,461	5,087,519	601,796	11.83
North Carolina	404,148	189,984,759	13,604,720	7.16	114,371	53,546,289	5,396,974	10.08	27,642	11,832,641	1,125,984	9.52
South Carolina	485,024	229,899,760	14,909,520	6.49	133,342	64,000,600	6,242,598	9.75	33,624	15,601,005	1,723,187	11.05
Georgia	303,836	145,470,324	9,665,464	6.64	145,859	69,139,410	6,663,560	9.64	71,389	33,757,199	3,591,554	10.64
Kentucky	23,982	11,971,815	770,363	6.43	11,980	5,751,305	554,206	9.64	4,050	1,882,234	188,856	10.03
Tennessee	30,234	15,028,584	982,146	6.54	33,114	15,779,360	1,554,851	9.85	10,436	4,944,279	508,305	10.28
Alabama	134,371	67,987,299	4,206,721	6.19	29,962	14,726,454	1,372,658	9.32	14,702	7,271,791	729,202	10.03
Mississippi	20,962	10,363,458	623,576	6.02	17,366	8,449,834	793,600	9.39	6,411	2,881,853	301,226	10.45
Texas	18,045	9,304,434	566,517	6.09					246	119,986	11,280	9.40
All other Southern states[2]	19,055	9,316,623	505,684	5.43	18,131	8,828,188	850,156	9.63	2,388	1,150,250	109,018	9.48
Western states	45,736	23,539,197	1,463,005	6.21	47,632	24,232,128	2,227,922	9.19	29,768	15,119,916	1,627,357	10.76
Ohio					11,023	5,840,078	383,556	6.57	5,323	2,506,182	258,198	10.30
Indiana	19,884	10,283,614	608,822	5.92	16,306	8,240,434	798,178	9.69	11,558	6,364,887	679,911	10.68
Illinois					6,405	3,267,188	312,621	9.57	2,261	1,099,130	110,969	10.10
Wisconsin	4,565	2,316,727	145,773	6.29	6,924	3,470,388	359,117	10.35	3,173	1,541,797	180,072	11.68
All other Western states[3]	21,287	10,938,856	708,410	6.48	6,974	3,414,040	374,450	10.97	7,453	3,607,920	398,207	11.04

[1] Includes sea-island, Egyptian, and other foreign.
[2] Includes establishments distributed as follows: 1900—Arkansas, 2; Louisiana, 2; West Virginia, 1. 1890—Arkansas, 2; Louisiana, 2; Texas, 1. 1880—Florida, 1; Arkansas, 2; Louisiana, 2; Texas, 2.
[3] Includes establishments distributed as follows: 1900—California, 1; Colorado, 1; Illinois, 1; Missouri, 2; Nebraska, 1. 1890—California, 1; Iowa, 2; Missouri, 1. 1880—Illinois, 2; Michigan, 1; Minnesota, 1; Utah, 1; Wisconsin, 1.

It will be seen from an examination of Table 13 that the average price of cotton in 1899–1900 was much below that in 1890, and that the decline was still greater when compared with 1880. Another fact which has a certain bearing upon the future of cotton manufacturing is that the average price in all parts of the country was fairly uniform. In 1880 the average price in states using a considerable amount of cotton varied between 9.52 cents per pound in North Carolina and 13.26 cents in New Jersey. In 1890 the variation was between 9.32 cents per pound in Alabama and 11.05 cents in Rhode Island. In 1900 the variation in states using as many as 75,000 bales each was from 6.19 cents in Alabama to 7.16 cents in North Carolina. Of course no general inferences of great value can be drawn from such facts further than that the price of cotton tends, under the influence of a local demand for the local crop and the steady cheapening of transportation charges, to equalize itself over the whole country. Differences in the quality of cotton used in the industry in the several sections of the country, and the season at which cotton is bought—often a mere matter of lucky or unlucky prognostication on the part of manufacturers—these things have too much influence in establishing average prices to allow definite conclusions to be drawn from the figures. It will be interesting to note how far consumption is overtaking production in some of the cotton states.

CROP, 1899–1900.	PRODUCTION (NEW YORK CHRONICLE).		CONSUMPTION (CENSUS).	
	Bales.	Pounds.	Bales.	Pounds.
Virginia	413,170	206,312,308	38,118	17,832,465
North Carolina	317,530	155,589,700	404,148	189,984,759
South Carolina	266,810	130,285,991	485,024	229,899,760
Georgia	1,358,586	665,978,857	303,836	145,470,324
Alabama	202,945	102,006,245	134,371	67,987,299

It appears that the crop of South Carolina needed to be supplemented by almost exactly 100,000,000 pounds, drawn from other states, to supply its spinners; that the North Carolina crop was deficient more than 34,000,000 pounds; that Alabama made use at home of two-thirds of its crop; that the great cotton-growing state of Georgia consumed more than one-fifth of its crop; and that even Virginia, which had made less progress in the industry than the states farther South, consumed more than one-twelfth of its crop. At the present rate of progress it will not be long before the entire cotton supply of the states on the Atlantic seaboard will be taken at home. More than half of it was taken during the census year here reported; for of the 1,260,000,000 pounds raised by the 5 states mentioned, their own mills took 651,000,000 pounds.

SEA-ISLAND COTTON.

The amount of sea-island cotton here reported as consumed in the United States is not only larger than

the amount reported at any previous census, but it is also larger than the commercial report for any previous year. The nearest approach to the current figures are those for the crop year 1896–97 when the American consumption is fixed at 40,670 bales. The New York Chronicle reports are taken for the years intervening between 1890 and 1900.

AMERICAN CONSUMPTION OF SEA-ISLAND COTTON.

YEARS.	Bales.	YEARS.	Bales.
1890	21,283	1896	40,530
1891	26,651	1897	40,670
1892	32,093	1898	34,140
1893	22,911	1899	28,654
1894	21,345	1900	47,207
1895	34,981		

Notwithstanding an extending use of sea-island cotton, an increase in the crop has caused a decline in the price, which at this census is but 14.8 cents per pound, as compared with 25.1 cents in 1890. The use of this material is restricted to 5 states—Massachusetts, Rhode Island, Connecticut, New York, and New Jersey—although a small quantity is returned by one establishment in North Carolina.

EGYPTIAN COTTON.

The use of Egyptian cotton for the manufacture of fine fabrics, but more particularly as the material for knit underwear, has grown greatly during the last decade. The amount imported into the country nearly doubled during the ten years 1881–1890, rising from 4,440,996 pounds, valued at $757,352, to 8,407,160, valued at $1,393,071. But in the ensuing ten years the importations have still further multiplied eightfold. The following statement shows by fiscal years the imports of foreign cotton, which was nearly all Egyptian:

YEARS.	Pounds.	Value.
1890-91	20,908,817	$2,825,004
1891-92	28,663,769	3,217,521
1892-93	43,367,952	4,688,799
1893-94	27,705,949	3,003,888
1894-95	49,332,022	4,714,375
1895-96	55,350,520	6,578,212
1896-97	51,898,926	5,884,262
1897-98	52,660,363	5,019,503
1898-99	50,158,158	5,013,146
1899-1900	67,398,521	7,960,945
Total for 10 years	417,444,997	48,905,655
Annual average	41,744,500	4,890,565

During the census year 1889–90 there was reported a use of 6,560,951 pounds of Egyptian cotton. The present returns account for a consumption of 55,844,932 pounds, which should properly be increased by an unknown amount consumed in a few hosiery establishments which spin a part, at least, of their own yarn. Egyptian cotton possesses some peculiarities which adapt it especially to the uses to which it is put. It is especially desirable, on account of its natural silkiness, for the process of mercerization.

The engraved diagrams represent, for the United States, the cotton production, the amount exported, and the amount of Northern and Southern consumption.

YARN PURCHASED.

Although there has been no perceptible movement during the last ten years in the direction of the English system of treating spinning and weaving as distinct industries—in the sense that both processes are not usually carried on in one factory—yet there has been a large proportionate increase in the number and importance of yarn mills. At the census of 1890 a little less than one-eighth of the value of products reported consisted of "yarns for sale;" at this census almost exactly one-sixth of the product is so classed. Although this increase, as will presently be noted, was demanded largely for consumption in collateral industries, there was an augmented use of cotton yarn in weaving establishments. The return of cotton yarn purchased for use in cotton mills proper, in the census year 1899–1900, was 83,832,216 pounds, valued at $15,749,536, as compared with 48,779,715 pounds, valued at $10,853,536, in 1890, an increase in value of about 50 per cent. Nevertheless, the situation has not changed substantially since it was noted in the report on the Eleventh Census that the establishments classed as "cotton goods," which make use of yarn not spun by themselves, are of three classes: (1) Those which both spin and weave, but do not produce enough yarn to supply their looms; (2) those which purchase fine yarn to be converted into sewing thread; and (3) those which weave only. It is noted elsewhere that the number of spindles in Pennsylvania has diminished during the last ten years. But there are in that state, chiefly in Philadelphia and its suburbs, a great many establishments which operate looms only in the production of the highest class of fancy-woven fabrics. They are by far the largest users of the yarn here reported among materials consumed. During the census year the factories in Pennsylvania took 36,304,919 pounds of this yarn, valued at $6,741,518, about 43.3 per cent of all the yarn so taken by the mills of the United States. Pennsylvania, with but 1.6 per cent of the spindles operated in the United States, has 3.5 per cent of the looms.

YARNS OTHER THAN COTTON.

The consumption of raw fibers, other than cotton, in the cotton mills of the country is quite unimportant; but in special mills there is a large use of yarn made of such fibers. The facts relating thereto were, at the census of 1900, obtained in much greater detail than

heretofore. The following statement makes such comparisons as are possible with the statistics published in 1890:

MATERIALS.	1900		1890	
	Pounds.	Value.	Pounds.	Value.
Silk	298,716	$1,158,321	32,851	$154,336
Spun silk	208,403	625,658	18,583	83,064
Linen	1,575,403	350,962	17,722	9,823
Worsted	687,019	415,904	87,257	62,514
Woolens	435,361	176,467	196,874	131,657
Merino	87,064	21,946	.....	.....
Mohair	21,398	21,435	.....	.....
Camel's hair	134,595	62,838	.....	.....
Jute	220,507	17,967	99,938	8,976
Mercerized cotton	16,233	15,752	.....	.....
Tussur	15,918	19,102	.....	.....
Other yarn	103,157	10,221	224,729	59,312
Total	3,803,774	2,896,577	677,954	509,682

It appears from the foregoing tabular statement that the use of yarn made from fibers other than cotton has increased more than fivefold in the last ten years. Such yarns are, of course, employed for mixing with cotton. With the exception of jute, and the inconsiderable amount reported indefinitely as "other yarn," they are all of higher cost than ordinary cotton yarn; and their use implies not an adulteration, but an improvement of the fabrics into which they enter.

OTHER MATERIALS.

Raw cotton and yarn account for 80 per cent of the total value of the materials used. The rest is made up of oil and starch, mill supplies, fuel, and freight. The purity of the goods manufactured in American mills is attested by the fact that no place needs to be reserved in this branch of the statistics for any articles used elsewhere for "loading" fabrics. A careful return was required of the quantity of starch consumed—a necessity in dressing warps—and it appears that it constitutes only 3.7 per cent of the weight of piece goods and yarn produced.

PRODUCTS.

Table 14 exhibits the kinds, quantity, and value of products of cotton mills in 1900, together with such comparison with the corresponding figures for 1890 as the inquiries at the Eleventh Census render possible.

TABLE 14.—PRODUCTS OF COTTON MILLS IN DETAIL: 1890 AND 1900.

KINDS	1900		1890	
	Square yards.	Value.	Square yards.	Value.
Aggregate value	.....	$332,806,156	.....	$267,981,724
Woven goods:				
Total	4,509,750,616	243,218,155	3,004,320,473	193,874,275
Plain cloths for printing or converting—				
Total	1,581,613,827	57,780,940	955,294,320	43,550,174
Not finer than No. 28 warp	1,056,278,952	35,616,575	[1]	[1]
Finer than No. 28 warp	525,334,875	22,164,365	[1]	[1]
Brown or bleached sheetings and shirtings	1,212,403,048	55,513,032	962,238,062	55,193,439
Ginghams	278,392,708	16,179,200	268,996,715	20,686,390
Ticks, denims, and stripes	171,800,853	16,446,633	167,121,426	16,987,546
Drills	237,206,549	11,862,794	[2]334,020,091	[2]23,601,239
Twills and sateens	235,860,518	14,301,302	.....	.....
Cottonades	26,323,947	2,791,431	[3]	[3]
Napped fabrics	268,852,716	18,231,044	[4]132,524,706	[4]10,574,924
Fancy woven fabrics	237,841,603	21,066,310	127,373,179	12,545,929
Corduroy, cotton velvet, and plush	7,961,523	2,682,017	[3]	[3]
Duck—				
Total	129,234,076	14,263,008	55,192,538	8,664,395
Sail	11,750,151	2,216,371	[3]	[3]
Other	117,483,925	12,046,637	[3]	[3]
Bags and bagging	30,039,616	2,554,192	[3]	[3]
Mosquito and other netting	41,885,023	875,868	[3]	[3]
Upholstery goods—				
Total	50,334,609	8,670,534	1,559,436	2,070,239
Tapestries (piece goods and curtains)	10,131,538	4,123,600	642,061	354,987
Lace and lace curtains	36,880,198	3,585,138	[3]	1,225,364
Chenille curtains	805,414	257,840	666,405	360,706
Other, including covers	2,517,459	703,806	250,970	129,182
	Pounds.	Value.	Pounds.	Value.
Yarns for sale	332,186,012	$55,188,663	166,397,003	$33,247,596
Sewing cotton	15,741,062	11,825,218	13,868,309	11,637,500
Twine	11,132,250	1,475,146	8,533,730	1,364,300
Tape and webbing	[3]	328,801	[3]	[3]
Batting and wadding	10,567,700	864,016	20,470,556	2,094,232
Waste for sale	270,100,756	5,552,234	141,109,597	5,679,701
Other products of cotton	[3]	5,154,170	[3]	[3]
All other products	.....	9,199,753	.....	20,084,120

[1] No separation of print cloths was made in 1890.
[2] Drills, twills, and sateens.
[3] Not separately reported.
[4] Cotton flannels.

The total value of the products of all the mills here reported was $332,806,156, of which $243,218,155, or 73.1 per cent, represented the value of woven goods; $55,188,663, or 16.6 per cent, the value of yarn spun to be used in other mills; $11,825,218, or 3.6 per cent, the value of sewing cotton; and $22,574,120, or 6.8 per cent, the value of miscellaneous and by-products. The proportion of these several classes of goods varies but

slightly from that indicated in the census returns of 1890. There was a decline of about 1 per cent in the relative value of woven goods, an increase of about 4 per cent in the relative value of yarn for sale, and a decrease in miscellaneous products. It should, nevertheless, be remarked that the more thorough classification of products at this census is responsible for an apparent decline in miscellaneous products which is not real. A large part of the "all other products" reported in 1890 should undoubtedly fall into some of the newly specified classes of woven goods. In respect to the corresponding item in the returns of the present census, a still more detailed classification would have removed from "all other products" a large quantity and value of toweling and other woven products which are not properly classified as piece goods.

An inspection of the table brings out the fact which is known to all persons acquainted with the trade in cotton goods, namely, that the demand for coarse and medium goods is many times that for fine fabrics. The largest single item is that of sheetings and shirtings, 1,212,403,048 square yards, the whole of which is made from coarse or medium yarns; and the next in point of magnitude is the 1,056,278,952 square yards of print cloths, not finer than No. 28 warp. Most of the other classes of goods are wholly or mostly woven from medium or coarse yarns. The exceptions are the finer-print cloths, 525,334,875 yards (which is only one-ninth of the gross yardage of woven goods), a certain portion of the fancy woven fabrics, a part of the twills and sateens, and a small part of the ginghams. The fact that there is a great demand for coarse and medium goods and a limited market for fine goods is pertinent to the suggestion that manufacturers who are unable to compete successfully in the production of standard plain cloths can find their salvation in turning to the spinning of fine yarns and the weaving of fine fabrics.

In comparing the quantities and values of goods in 1890 and in 1900 it will be seen that, taking both classes of print cloths, there was an increase in quantity of more than one-half, and an increase in value of little more than one-third. There was an increase in the quantity of standard sheetings and shirtings of rather more than one-fourth, but the aggregate value was almost the same in 1890 and 1900. A small increase in the quantity of ginghams is accompanied by a reduction of more than one-fifth in the gross value. The same discrepancy is to be noted throughout the list. The explanation—the greatly diminished cost of cotton during the census year 1899–1900—is an interesting illustration of the untrustworthiness of statistics showing the value of products as a test of the condition of an industry, or for the purpose of comparing one industry with another.

An interesting feature of the details respecting woven goods is the great increase in the quantity of articles classed as upholstery goods. In 1890 they were reported as of a total value of $2,070,239; in 1900 they were returned at $8,670,384, consequently, the industry has become more than four times as important as it was ten years ago. Practically the whole of this industry is located in the city of Philadelphia.

An important increase is also to be noted in the production of yarns for sale. The amount, in fact, has almost exactly doubled, and the value is two-thirds greater than in 1890. There is a large and growing demand for yarn in knitting mills and in weaving establishments which do no spinning, as well as in mills which spin too little for their own consumption. Prior to 1890 there were few yarn mills in the South, but during the last decade there have been many factories of that class put in operation. A large part of the yarn here reported can be traced to its ultimate use. Thus, we find that 83,832,216 pounds were used in other mills, classed as "cotton goods;" 55,217,994 pounds in the wool manufactures; 131,820,068 in the hosiery and knit goods manufactures; 10,860,648 pounds in cotton small wares establishments; 6,444,208 pounds in silk manufactures; 3,860,235 in cordage and twine; 810,957 pounds in linen manufactures; and 301,888 pounds in jute manufactures. This leaves but 39,037,798 pounds not accounted for, but the consumption of yarn for other purposes is large—for example, in winding wire to insulate it for electrical conduction. The production of sewing cotton has not kept pace, in expansion, with most other branches of the industry. It may be that the consolidation of the producing companies has led to a more close approximation of demand and supply. It will be noted that, in common with other branches of the cotton manufacture, the average price of sewing cotton has declined.

MATERIALS AND PRODUCTS TWICE REPORTED.

The gross value at the factory of all the products of cotton mills is reported as $332,806,156. This sum is no doubt in excess of the net product, inasmuch as in many cases the finished product of one mill is the material of another. The excess is, nevertheless, far less proportionately than is the case with many other industries, for the reason that, as is elsewhere explained, the great majority of establishments in this branch of textile manufacturing carry through their raw material, cotton, from the baled lint to the woven cloth. In the aggregate, however, there is a large consumption of partially manufactured material consumed by weaving establishments, of which some spin a quantity of yarn insufficient to supply their looms, and others do not spin at all. Following is a statement, as complete as can be made, of the partially manufactured materials con-

sumed which must be eliminated from the total of both materials and products to show the facts regarding this industry:

ARTICLES.	Value.
Yarn:	
Cotton	$15,749,536
Silk	1,158,321
Spun silk	625,658
Worsted	415,904
Woolen	176,467
Other	520,223
Total of yarn	18,646,109
Waste of other mills	1,513,281
Oil	494,179
Starch	1,223,102
Chemicals and dyestuffs	5,671,768
Mill supplies	7,664,490
Other materials	4,614,468
Total	39,827,397

Probably a considerable amount of the chemicals and dyestuffs reported consisted either of crude materials of domestic origin, which do not appear anywhere as a product of manufacture, or of articles imported in a condition for immediate use; but it is impossible to separate the amounts from the total, or even to make a reasonable estimate of their value. The whole is therefore counted as a duplication.

Deducting the total above shown from the total value of materials used, the remainder is $133,613,993. Deducting it also from the total value of products, the remainder is $292,978,759.

DYEING AND FINISHING.

The dyeing and finishing of cotton yarn and cloth is carried on partly in cotton mills and partly in independent establishments. The statistics of this industry are presented in the reports on combined textiles, and on the dyeing and finishing of textiles. Table 15 shows the additional work done upon the products of mills after spinning or weaving in both classes of establishments, and the additional value reported to have been given to those products by the several processes.

TABLE 15.—DYEING AND FINISHING IN COTTON MILLS AND IN INDEPENDENT ESTABLISHMENTS: 1900.

PROCESS.	TOTAL.		IN COTTON MILLS.		IN INDEPENDENT ESTABLISHMENTS.	
	Quantity, pounds.	Value added.	Quantity, pounds.	Value added.	Quantity, pounds.	Value added.
Yarn:						
Bleached	12,780,518	$252,635			12,780,518	$252,635
Dyed	205,713,712	7,691,268	151,610,157	$5,464,356	54,103,555	2,226,912
Mercerized	3,018,573	487,946	2,149,722	328,330	868,851	159,616
Total yarn treated	221,512,803	8,431,849	153,759,879	5,792,686	67,752,924	2,639,163
	Square yards.	Value added.	Square yards.	Value added.	Square yards.	Value added.
Cloth:						
Bleached	1,162,593,900	$7,623,875	197,691,533	$932,452	964,902,367	$6,691,423
Dyed	685,374,965	8,923,925	125,894,626	1,338,721	559,480,339	7,585,204
Printed	1,233,191,438	21,239,782	292,741,100	5,242,695	940,450,338	15,997,087
Mercerized	7,973,506	400,118			7,973,506	400,118
Total cloth treated	3,089,133,809	38,187,700	616,327,259	7,513,868	2,472,806,550	30,673,832
Total value added		46,619,549		13,306,554		33,312,995

From Table 15 it appears that $46,619,549 was added to the value of goods produced in the cotton mills of the country, by the various processes of dyeing and finishing. Manufacturers were not asked to return the amount of yarn bleached, and the full added value was therefore not ascertained. Even without this amount the returns show that of the yarn treated 69.4 per cent was treated in the cotton mills, and only 30.6 per cent in independent establishments. On the other hand four-fifths of the cloth treated was operated upon in independent establishments. Of the 4,509,750,616 square yards of woven goods reported in Table 14, 1,233,191,438 square yards were printed; 685,374,965 square yards were dyed; 278,392,708 square yards were ginghams, and 171,800,853 square yards ticks, denims, and stripes, containing dyed yarns—a total of 2,368,759,964 square yards. This indicates that something more than one-half of the woven goods produced in cotton mills is colored by printing or dyeing before entering into consumption. The figures relating to bleaching are to be considered with full allowance for the fact that bleaching is a necessary preliminary to printing and other processes, so that the same material is twice reported. Many manufacturers in making returns of dyeing or printing did not report separately the amounts bleached, but treated the whole process as one.

FINENESS OF GOODS—AVERAGE NUMBER OF YARN.

The method adopted for ascertaining the average number of yarn spun is the same as that first introduced at the Eleventh Census. The method in use prior to that time was based upon the number of spindles producing yarn of a particular fineness. For example, the average number of yarn produced by two mills, each having 10,000 spindles, the one spinning No. 20's and the other spinning No. 30's would be No. 25. This method was faulty, inasmuch as it assumed the equal speed and efficiency of all spindles, and also because it took no account of the fact that spindles of equal efficiency making coarse yarns spin a greater weight of yarn than those making fine yarn. The new mode of calculating it is based upon the quantity of yarn produced. The average of 5,000 pounds of No. 20 and 7,000 pounds of No. 36 would be No. 29.333. There would be 100,000 hanks (of 840 yards) of No. 20 and 352,000 hanks of No. 36, and the average is ascertained by dividing the number of hanks by the number of pounds. Of course, this method does not give an absolutely accurate result, inasmuch as manufacturers can not in all cases estimate exactly what is the average number of their own production, particularly if they make yarn of many degrees of fineness; but it is more nearly correct than the former system and is the most satisfactory method yet devised. To illustrate the inaccuracy that arises in the use of the present method, there is a mill in the state of New York which has a majority of its spindles producing yarn finer than No. 40; but as it operates also a comparatively small number of mules making coarse hosiery yarn, it reports its average number as 18.

It is, and probably it always will be, true that an overwhelmingly great proportion of the cotton goods demanded for use even in wealthy communities is made of medium or coarse yarns. It will be seen from the table showing the gross spinning of fine, medium, and coarse yarns, that not much more than one-twentieth of the yarn spun is classed as fine. Nevertheless there is a constant tendency toward finer spinning. The demand for cloth classed strictly as fine increases steadily, and, among the users of the heavy goods which represent the spinning and weaving industries in pioneer times, the desire grows for the standard sheetings and shirtings made of yarn ranging from No. 25 to No. 40. Yet the perversity of averages conceals these tendencies to a great extent, as will become evident upon an examination of the following statement, showing by states and geographic divisions the average number of yarn spun in 1900 and 1890:

STATES.	AVERAGE NUMBER OF YARN.	
	1900	1890
United States	21.573	22.93
New England states	25.560	26.20
Maine	22.937	22.66
New Hampshire	19.174	21.14
Vermont	27.894	25.95
Massachusetts	25.097	26.75
Rhode Island	36.541	34.73
Connecticut	30.373	29.91
Middle states	19.176	20.45
New York	23.457	27.69
New Jersey	35.370	37.14
Pennsylvania	16.489	16.65
Delaware	23.522	22.33
Maryland	9.357	9.35
Southern states	17.046	14.76
Virginia	15.287	17.04
North Carolina	18.830	15.30
South Carolina	19.040	15.13
Georgia	14.371	11.35
Kentucky	13.722	15.75
Tennessee	12.722	12.22
Alabama	11.437	12.67
Mississippi	11.314	11.58
Arkansas	5.878	.....
Louisiana	15.876	.....
Texas	9.580	.....
Western states	19.418	15.32
Indiana	18.262	14.66
Illinois	22.000	17.20
Wisconsin	20.879	20.37
Nebraska	27.000	.....
Missouri	15.426	.....
Colorado	20.000	.....
California	9.000	.....

From the foregoing figures it would be natural to conclude that the tendency has been toward coarser spinning. But it will be seen that the average number of yarn in the Southern states, where the largest increase has taken place, has advanced two and a quarter numbers. Yet because the average in that section is still eight and a half numbers below the average in New England, the general average of the whole country is reduced. In New England there was a large increase in the spinning of coarse, medium, and fine yarns. The proportional increase of fine spinning was 59.3 per cent more than the increase of coarse, and 94.7 per cent more than the increase of medium goods; but since the actual increase in pounds of fine yarn spun was less than the increase in the two other classes, the general average is slightly reduced. Table 16, showing the aggregate amount of yarn spun, by states geographically arranged, divided into coarse, medium, and fine, in 1900 and 1890, gives a much better idea of the situation than can be obtained from any calculation of the average number.

TABLE 16.—YARNS SPUN, CLASSIFIED BY GRADE, BY STATES GEOGRAPHICALLY ARRANGED: 1890 AND 1900.

STATES.	1900					1890			
	Number of hanks of yarn spun.	Total.	No. 20 and under.	No. 21 to No. 40.	No. 41 and over.	Total.	No. 20 and under.	No. 21 to No. 40.	No. 41 and over.
		Pounds.	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*
United States	31,660,042,486	1,467,565,971	850,203,953	540,166,147	77,195,871	901,842,238	480,273,239	386,723,173	34,845,826
New England states	19,067,774,000	745,990,534	304,842,149	369,423,518	71,724,867	574,084,144	207,672,353	331,611,339	34,800,452
Maine	1,536,861,865	67,003,387	40,530,149	23,608,965	2,864,273	54,963,253	26,577,650	28,385,603	
New Hampshire	2,089,377,338	108,968,243	79,300,869	29,667,374		91,167,408	54,984,891	36,182,517	
Vermont	151,549,744	5,432,983	1,525,033	3,907,950		3,752,391	1,243,508	2,508,883	
Massachusetts	11,106,615,977	442,538,758	164,190,352	235,617,217	42,731,189	308,797,274	103,234,514	186,750,241	18,812,519
Rhode Island	2,822,384,752	77,238,360	3,661,667	57,341,561	16,235,132	75,037,935	8,280,776	55,640,821	11,116,338
Connecticut	1,360,984,324	44,808,803	15,634,079	19,280,451	9,894,273	40,365,883	13,351,014	22,143,274	4,871,595
Middle states	2,260,033,536	117,856,490	86,166,567	27,105,119	4,584,804	103,035,788	62,850,759	40,139,655	45,374
New York	985,573,613	42,014,730	25,241,091	16,443,639	330,000	32,083,114	6,553,540	25,529,574	
New Jersey	432,593,550	12,230,347	5,366,044	2,979,499	3,884,804	6,133,639	1,456,672	4,631,593	45,374
Pennsylvania	555,394,994	32,468,390	25,344,251	6,754,139	370,000	40,238,918	32,215,744	8,023,174	
Delaware	24,968,690	1,061,474	133,632	927,842		3,828,238	2,325,960	1,502,278	
Maryland	281,502,689	30,081,549	30,081,549			20,751,879	20,298,843	453,036	
Southern states	9,998,763,591	586,516,002	445,967,812	139,691,990	856,200	209,987,348	197,443,432	12,543,916	
Virginia	230,991,103	15,110,233	13,457,870	1,652,363		7,719,379	7,719,379		
North Carolina	2,945,812,639	156,435,539	99,021,341	56,527,998	886,200	45,048,638	41,972,080	3,076,558	
South Carolina	3,730,694,191	195,930,440	132,903,687	63,026,753		54,520,363	53,275,593	1,244,770	
Georgia	1,680,985,417	116,967,671	108,276,364	8,691,307		58,832,378	52,611,129	6,221,249	
Kentucky	124,480,316	9,071,044	5,818,514	3,252,530		4,248,115	2,246,776	2,001,339	
Tennessee	141,889,665	11,152,567	11,152,567			12,310,343	12,310,343		
Alabama	835,446,399	57,866,762	51,325,723	6,541,039		11,699,255	11,699,255		
Mississippi	113,456,683	7,909,625	7,909,625			6,966,959	6,966,959		
Arkansas	5,251,558	893,279	893,279						
Louisiana	111,105,000	6,998,216	6,998,216						
Texas	78,650,620	8,210,626	8,210,626						
All other Southern states						8,641,918	8,641,918		
Western states	333,471,359	17,172,945	13,227,425	3,945,520		14,734,958	12,306,695	2,428,263	
Indiana	158,265,234	8,666,072	8,666,072			6,649,187	6,649,187		
Illinois	48,345,506	2,197,523		2,197,523		2,374,131	950,000	1,424,131	
Wisconsin	36,855,304	1,765,128	988,756	776,372		2,682,606	1,678,474	1,004,132	
Missouri	20,339,500	1,318,500	1,318,500						
Nebraska	26,233,875	971,625		971,625					
Colorado	42,081,940	2,104,097	2,104,097						
California	1,350,000	150,000	150,000						
All other Western states						3,029,034	3,029,034		

POWER.

The returns of power used in the cotton-manufacturing industry present the extraordinary fact, that of the 806,121 horsepower employed in all the establishments in the United States, only 12,602 horsepower, less than 1.6 per cent, was hired. It should be explained that a large number of corporations whose factories are operated by waterpower do not own the water privileges. That is to say, they pay in one form or another for the water which turns their wheels. This expense is not classed as rent, but as a part of the materials used. It is evidently an expense of the same sort as the fuel which is consumed in supplying steam power.

Although the statistics are lacking for a comparison of the kinds of power in use during the year 1900 with those employed in previous census years, yet it may be surmised with a degree of confidence that the present returns signalize a culmination of the use of steam as compared with waterpower. In the early days of the industry cotton factories were usually, one might almost say invariably, located upon waterpower. So universally was this the practice that cotton mills which were erected in coast towns, where coal could be procured at a low transportation cost for steam making, were distinguished in the titles of the corporations as "steam" mills. But the inadequacy of waterpower as the motive force for great groups of factories, and the failures and stoppages caused by drought, flood and ice, led to the addition of steam engines for a supplementary power, and to the erection of mills without reference to waterpower. This change has gone to such an extent that steam power used in the factories is more than double the waterpower employed. The numbers representing the two kinds of power are 527,186 horsepower for steam, and 250,790 horsepower for water. There are, nevertheless, some reasons for believing that there may be a reaction, the importance of which can not be predicted. The development of the use of electricity carries with it the possibility of a cheap transmission of power to a distance without serious loss. In this way it becomes feasible to make available certain waterpowers which, on account of their location or the physical characteristics of the country, have heretofore been useless. The growing importance of electricity as a motor appears in the current returns which show a total of over 18,000 electric horsepower, owned and rented. The application of electricity direct to the machinery, without the use of shafting and belting, is comparatively new, but it is certain that it has a great future, and that here-

after manufacturers will find in the system great benefits, of which a saving in expense will not be the least.

MACHINERY.

Ever since the first application of mechanical power to the movement of the spindle there has been a constant improvement in the machinery employed in the spinning and weaving of cotton. The foundation of the cotton manufacture was laid in the almost simultaneous invention of the steam engine and the earliest form of spinning machinery. Hargreaves's spinning jenny, invented in 1764 and patented in 1770; Arkwright's water frame, the invention of drawing by rollers, brought out in 1769 and improved in 1775; Crompton's mule—so called because it combined the principles of Hargreaves's and Arkwright's inventions—patented in 1779; these antedated but a short time the introduction of Watts's steam engine, which was invented in 1769, became a practicable power agent by improvements made in 1781, and was first applied to the production of cotton yarn in 1785. All of Arkwright's patents, which included improvements in carding, drawing, roving, and spinning, were thrown open in 1785. In the same year Dr. Cartwright invented the power loom, and thus completed the group of fundamental inventions of which all modern spinning and weaving machinery is but an adaptation and a series of improvements.

But there has been another series of inventions directed to the economical, rapid, and thorough preparation of the cotton for spinning, as well as a constant succession of improvements in the final processes of the manufacture, which have multiplied a hundred if not a thousand fold the efficiency of the industry. In the year 1800 the scutching machine was introduced, the invention of Snodgrass, of Glasgow. The lap machine was introduced in nearly the form it has to-day by Mr. John Crighton, of Manchester, in 1814. Mr. Crighton also effected an important reform in the processes of opening and scutching. The invention of the carding machine and its gradual evolution into the almost perfect mechanism of to-day, cover nearly the whole of the Nineteenth century. The first important improvement was made in 1823. The principle of the revolving flat was devised in 1834. After being neglected for more than twenty years it was taken up and improved in 1857, and about 1880 became, in the hands of the Messrs. Ashworth, substantially the carding machine of the present day. The combing machine was first exhibited by its inventor, Mr. Josué Heilmann, of Mulhouse, at the Paris Exposition, in 1851.

The mule, as invented by Crompton, was a semi-manual machine. Richard Roberts, in 1835, transformed it into the purely automatic machine which we see at this time, so exact and precise in its several successive motions that it seems endowed with almost human intelligence. Since Roberts's time the history of the mule has been one of development in detail and of better construction, but the changes of this sort have made it vastly more useful in speed, in precision of action, and in the quality of the yarn which it makes. The improvement in frame spinning has been much greater than in the mule. The invention of the ring and the traveler in the third decade of the last century opened a wide field to the genius of mechanicians. Improvement followed improvement in rapid succession until the Rabbeth spindle reached what seems to be the practical limit of speed, and, therefore, of the production of yarn, at about 10,000 turns a minute. The final improvements, which made ring spinning more economical and profitable than mule spinning, for all except certain special purposes, in mills wherein both spinning and weaving are carried on, were accomplished in the closing decades of the century.

The most important advance in machinery during the past decade has been in the loom. Glancing backward we find that Cartwright invented the power loom in 1785, as has been already noted. The policy of the British Government at that time and for many years afterwards forbade the exportation of machinery and of patterns for making it. Accordingly, it was necessary to reinvent the power loom for use in the manufacture of cotton in this country. The feat was successfully accomplished by Francis Cabot Lowell, in 1814. Numerous improvements were made during the ensuing three-quarters of a century. The efforts of inventors are always directed toward the discovery of devices by which the speed of machinery may be increased, of automatic motions which will diminish the amount of care and attention to be bestowed by operatives upon the machines, and to a reduction of the time during which the machines must be stopped, either after a breakage of the yarn or to replace exhausted shuttles. Stop-motions have been devised for many of the machines used in cotton mills, arrangements by which the breaking of a single thread at any point causes the whole machine to stop instantly.

The problem of the loom, so far as necessary stoppages are concerned, has been most difficult. For spinning, the process, whether on the mule or on the frame, may be said to be almost continuous, the time required for doffing forming but an inappreciable part of the whole. But the capacity of the shuttle is limited. At the speed at which modern looms are run the yarn in the shuttle box is exhausted in about eight minutes, in the manufacture of medium shirtings or print cloths. If the yarn is coarser and the speed the same, the shuttle needs to be changed still oftener. Inasmuch as the cost of labor in weaving is fully one-half the labor cost of converting a pound of raw cotton into cloth, the importance of reducing or of doing away altogether with the time occupied in changing shuttles is too evident to be more than stated. Attention was long ago turned in this direction. In 1840 an English patent was taken out for a shuttle-changing device when the weft was broken or

exhausted; but it seems not to have been successful, otherwise it would have been adopted by manufacturers throughout the world. Many inventors have exercised their ingenuity to overcome the mechanical difficulty. Within the last decade the principle so long sought after has been found, but it consists not in a changing of the shuttle while the loom is in motion, but in giving the shuttle a fresh supply of weft without removing it from the loom. The success of the Northrop loom has stimulated inventors to accomplish equally brilliant results by new devices of the shuttle-changing variety. Although there are some machines which effect the change with promising efficiency, they are yet in the experimental stage.

On the other hand, the Northrop loom, which was first brought to the attention of manufacturers in April, 1895, has such self-evident advantages for the weaving of plain cloth that in less than five years, at the end of the year 1899, the output was more than 42,500 looms. This loom has two fundamental improvements—the filling-changing mechanisms and the warp-stopping devices. By the first, the time of stoppage on account of exhausted shuttles is wholly saved. By the second, the machine is stopped instantly upon the breaking of a single warp thread. In combination they add greatly to the productive capacity of the weaver. A good weaver, operating plain narrow looms, has a capacity of 8 looms. His time is chiefly occupied by replacing empty shuttles and in mending broken warp threads. The first is the more important, inasmuch as the failure to repair warp breaks merely causes an imperfection in the weaving, which is tolerated in many classes of goods; whereas an empty shuttle means a stoppage of the loom. The filling-changing mechanism reduces to a small fraction the time needed to supply looms with weft, and thus leaves most of the weaver's time free to repair warp breaks. His capacity is therefore increased to the number of looms for which he can perform this service, practically, to double or more than double the number of plain looms which he can tend. The saving which is effected is illustrated by the fact that in some cases the weaver, on leaving his work for dinner, has left all his looms running, the filling magazines all full, and on returning at the expiration of the dinner interval has found some of them still running. All those in which there had been a breakage of the warp had of course stopped, and therefore no imperfect cloth had been woven.

The stimulation to the production of a rival to this invention has already been mentioned. But the introduction of the Northrop loom has had an important reflex influence upon other parts of the cotton-manufacturing machinery. For example, an appreciable gain of time can be made if the frequency of stoppages for changing the shuttle can be diminished. Heretofore mule filling has not been adapted to the Northrop loom, where a large ring bobbin can be more readily handled than a mule cop on the spindle. Moreover, there has been in the past difficulty in making mule cops of large size that would be proof against breaking in the shuttle, or in being handled about the mill. The waste from mule filling was in many cases so great as to be prohibitive. Weavers preferred to use small cops rather than take the risks of large cops falling apart in weaving. But the problem of spinning large, well-wound mule cops of filling yarn has now been solved, and the necessary devices can be applied to old mules. A weaver tending 8 looms, and changing shuttles that contain yarn enough to supply the loom eight minutes, has to make an average change of one a minute. The larger mule cops contain enough No. 36 yarn to run twelve minutes, and of course his loom capacity is considerably increased. Many manufacturers prefer mule filling for certain fabrics on account of the soft appearance and "feel" of the cloth, as compared with ring-filling cloth, and the new mills which have been built to make the higher grades of fine cloths are still fully equipped with mules to make filling.

If the mule is being adapted to produce yarns usable where frame-spun yarn has heretofore had full sway, there has been a promising effort to adapt the ring-traveler principle to the production of a slack-twisted yarn, which could formerly be made only on the mule, at the same time winding it on the bare spindle, in cop form. This improvement is as yet only in the experimental stage. At present there seems to be a difficulty in the way of making use of the device for the production of knitting yarns, which constitutes the largest demand for yarns not immediately used by the spinner. Soft-twisted yarns for knitting purposes should be in large cops to avoid frequent piecings in the knitting machine. This does not now seem practicable, for the greater diameter of ring necessary would bring too great a strain upon the yarn. No doubt in time this difficulty can be overcome, as many difficulties greater than this have been surmounted. The attempt to solve the problem is cited as evidence that the age of invention in the marvelously developed cotton-manufacturing industry has not yet closed.

THE PROGRESS OF THE INDUSTRY AS INDICATED BY THE NUMBER OF SPINDLES.

Table 17 shows the number of cotton spindles used in textile manufactures, by states, 1890 and 1900.

TABLE 17.—NUMBER OF ACTIVE COTTON SPINDLES IN THE TEXTILE INDUSTRY, BY STATES GEOGRAPHICALLY ARRANGED: 1890 AND 1900.

STATES.	1900						1890
	Total.	In cotton mills.	In hosiery and knit goods mills.	In worsted mills.	In woolen and carpet mills.	In cotton small wares, and cordage and twine factories.	Total.
United States	19,472,232	19,008,352	206,698	95,356	59,460	102,366	14,384,180
New England states	13,171,377	12,850,987	137,376	95,356	27,344	60,314	10,931,297
Maine	848,377	841,521			3,584	3,272	892,762
New Hampshire	1,249,875	1,243,555	6,320				1,198,643
Vermont	100,028	100,028					71,591
Massachusetts	7,932,883	7,784,687	91,356	50,080	3,760	3,000	5,872,852
Rhode Island	1,976,198	1,880,622		45,276	10,000	40,300	1,959,294
Connecticut	1,064,016	1,000,574	39,700		10,000	13,742	939,155
Middle states	1,721,347	1,647,251	52,712		20,184	1,200	1,716,019
New York	764,492	720,268	38,404		5,820		629,324
New Jersey	431,730	431,730					374,442
Pennsylvania	336,509	306,637	14,308		14,364	1,200	496,551
Delaware	34,552	34,552					63,916
Maryland	154,064	154,064					161,786
Southern states	4,354,034	4,298,188	16,610		5,000	34,236	1,563,598
Virginia	132,707	126,827	5,880				94,291
North Carolina	1,137,328	1,133,432	2,860			1,036	344,606
South Carolina	1,436,969	1,431,349	5,620				332,784
Georgia	832,321	815,545				16,776	445,452
Kentucky	66,633	66,633					42,942
Tennessee	130,296	123,896			5,000	1,400	98,324
Alabama	419,968	411,328				8,640	79,362
Mississippi	78,146	75,122				3,024	67,004
Arkansas	13,060	9,700				3,360	5,780
Louisiana	57,850	55,600	2,250				48,050
Texas	48,756	48,756					16,000
Western states	225,474	211,926			6,932	6,616	170,266
Ohio	4,600					4,600	16,580
Indiana	108,988	102,488			6,500		80,604
Illinois	31,488	31,488					21,800
Wisconsin	21,496	21,496					32,592
Iowa							6,000
Missouri	13,654	13,654					6,690
Nebraska	15,488	15,488					
Utah	432				432		
Colorado	17,312	17,312					
Kansas	2,016					2,016	
California	10,000	10,000					6,000

The number of working spindles is the universally accepted measure of the capacity of cotton mills, and of the growth of the industry in any particular state or region. It is admittedly an imperfect measure; but it is not only more accurate than would be any expression in terms of capital employed, number of hands or their wages, quantity or value of materials consumed, or weight or value of product, but it is also a better gauge than is available for most industries. The present mill of 50,000 spindles is a vastly larger factory in all respects than was the mill of 50,000 spindles in 1850, and the 19,000,000 spindles of the year 1900 undoubtedly produce five times as great an amount of goods as the 7,000,000 spindles of 1870. Nevertheless, the necessity manufacturers are under to adopt improvements in machinery produces such an equalizing effect upon the several establishments at any one time that the percentage of correction needed is not great; and the rate of progress in the efficiency of machinery is so well known that it is easy to make allowance for it in comparisons of one time with another.

The grand total of active producing cotton spindles in all the textile mills of the United States during the census year 1899–1900 was 19,472,232, as compared with 14,384,180[1] at the Eleventh Census, a numerical increase of 5,088,052 spindles, or 35.4 per cent. These spindles were located as follows:

	1900	1890
In cotton mills	19,008,352	14,188,103
In hosiery and knit goods mills	206,698	69,830
In worsted mills	95,356	68,225
In woolen mills[1]	59,460	58,022
In cotton small wares establishments	42,600	(2)
In cordage and twine factories	59,766	(3)
Total	19,472,232	14,384,180

[1] Including carpets. [2] Included in cotton mills. [3] Not reported.

The indicated increase in the number of spindles in mills other than cotton factories is apparent rather than real. A company in New England having 75,000 spindles, which in 1890 made both woven goods and knit goods, and was then classed as operating a cotton factory, now makes hosiery and knit goods exclusively.

[1] The total number of spindles in the United States as reported at the Eleventh Census was 14,550,323, of which 166,143 were idle spindles in cotton mills. At this census no idle spindles which are likely to be put in operation again were reported from any state.

and being classed with that industry swells the total unduly. In many cases, both in 1890 and in 1900, companies that produce both cotton and woolen or worsted goods, or mixed goods, made divided returns of their operations; some such companies made but one return, being classified according to the relative importance of their cotton or their woolen business. The fact of their making one return or divided returns at one census and not at the other explains partially the apparent increase in 1900. No doubt a certain part of the increase is real.

Although the gross number of operating spindles in mills of all kinds, 19,472,232, is to be taken as the true measure of the magnitude of the cotton industry in the United States, the present report deals exclusively with the spindles in cotton mills proper. The percentage of increase in them in the whole country is almost exactly 34 per cent. If we estimate that the average efficiency of spindles has increased 5 per cent during the same period, the ability of American mills to supply a demand for goods has increased about 40 per cent. Numerically there has been an addition of 2,014,832 spindles, or 18.6 per cent, in New England; of 13,529 spindles in number, or 0.8 per cent, in the Middle states; of 2,744,188 spindles in number, or 176.6 per cent, in the Southern states; and of 47,700 spindles in number, or 29 per cent, in the Western states. Taking account of the spinning capacity of spindles, the growth of the industry in the New England states is probably not greatly above that which is indicated by the actual number of spindles, since the mills in that part of the country were in advance of the South in installing improved spindles. On the other hand, not only has the number of spindles in the Southern states become nearly threefold that reported in 1890, but the spindles themselves are for the most part of the latest and most efficient types. With respect to one state the test of capacity by the number of spindles wholly fails. The industry in Pennsylvania is largely one of weaving yarn made elsewhere. Although the state ranks fifth in the value of the products of its cotton mills, and fourth among the states in the amount of wages paid to employees, it is only the twelfth according to the number of spindles. It shows a considerable increase of looms, and the industry has in fact expanded during the decade, but the number of spindles has declined.

Table 18 shows the mule and frame spindles in cotton mills, by states geographically arranged: 1880, 1890, and 1900.

TABLE 18.—NUMBER OF SPINDLES IN COTTON MILLS, BY STATES GEOGRAPHICALLY ARRANGED: 1880, 1890, AND 1900.

STATES.	1900			1890			1880
	Total.	Mule.	Frame.	Total.	Mule.	Frame.	Total.
United States	19,008,352	5,563,480	13,444,872	14,188,103	5,363,486	8,824,617	10,653,435
New England states	12,850,987	4,477,199	8,373,788	10,836,155	4,391,895	6,444,260	8,632,087
Maine	841,521	256,948	584,573	885,762	344,697	541,065	695,924
New Hampshire	1,243,555	287,165	956,390	1,195,643	364,234	831,409	944,053
Vermont	100,028	43,316	56,712	71,591	42,735	28,856	55,081
Massachusetts	7,784,687	2,556,316	5,228,371	5,824,518	2,430,719	3,393,799	4,236,084
Rhode Island	1,880,622	940,328	940,294	1,924,486	811,869	1,112,617	1,764,569
Connecticut	1,000,574	393,126	607,448	934,155	397,641	536,514	936,376
Middle states	1,647,251	858,675	788,576	1,633,722	822,613	811,109	1,391,164
New York	720,268	367,136	353,132	606,796	334,210	272,586	561,658
New Jersey	431,730	367,092	64,638	374,442	304,480	69,962	232,221
Pennsylvania	306,637	124,447	182,190	439,638	175,687	263,951	425,391
Delaware	34,552	.....	34,552	53,916	2,880	51,036	46,188
Maryland	154,064	.....	154,064	158,930	5,356	153,574	125,706
Southern states[1]	4,298,188	180,534	4,117,654	1,554,000	108,474	1,445,526	[1]542,048
Virginia	126,827	2,325	124,502	94,294	13,198	81,096	44,340
North Carolina	1,133,432	35,352	1,098,080	337,786	30,920	306,866	92,385
South Carolina	1,431,349	10,752	1,420,597	332,784	4,000	328,784	82,334
Georgia	815,545	84,926	730,619	445,452	20,524	424,928	198,656
Kentucky	66,633	18,399	48,234	42,942	8,784	34,158	9,022
Tennessee	123,896	20,780	103,116	97,524	21,588	75,936	35,736
Alabama	411,328	8,000	403,328	79,234	9,460	69,774	49,432
Mississippi	75,122	.....	75,122	57,004	.....	57,004	18,568
Arkansas	9,700	.....	9,700	5,780	.....	5,780	.....
Louisiana	55,600	.....	55,600	46,200	.....	46,200	.....
Texas	48,756	.....	48,756	15,000	.....	15,000	.....
Western states[2]	211,926	47,072	164,854	164,226	40,504	123,722	[2]88,136
Ohio	.....	.....	.....	16,560	8,152	8,408	13,328
Indiana	102,488	16,320	86,168	74,604	16,320	58,284	33,396
Illinois	31,488	16,000	15,488	21,800	8,000	13,800	.....
Wisconsin	21,496	2,816	18,680	32,592	5,632	26,960	.....
Iowa	.....	.....	.....	6,000	.....	6,000	.....
Missouri	13,654	.....	13,654	6,670	2,400	4,270	19,312
Nebraska	15,488	6,272	9,216	.....	.....	.....	.....
Colorado	17,312	5,664	11,648	.....	.....	.....	.....
California	10,000	.....	10,000	6,000	.....	6,000	.....

[1] Includes in 1880, 11,575 spindles reported by states other than those named. [2] Includes in 1880, 22,100 spindles reported by states other than those named.

Attention was called in the report upon the Eleventh Census to the steady substitution of frame spindles for mules. The change has been going on to a marked degree during the past ten years. It would, perhaps, not be accurate to assert that mules have been to any great extent removed from old mills and ring spindles placed in them. The more correct view is that substantially all the new spinning is frame spinning. In New England the increase in mule spindles is less than 100,000; of frame spindles, nearly 2,000,000. In the South ten years ago there were only 108,474 mule spindles; there are now reported 180,534; but as contrasted with this very moderate increase we have an addition of almost 2,700,000 frame spindles. In the Middle states the mule has more than held its own. Ten years ago there was an excess of about 11,000 mule spindles over ring spindles. By the present count the excess is about 70,000. It is well known that although for most purposes in cotton manufacturing the yarn made upon ring spindles is altogether satisfactory, there is a demand for slack-twisted yarn chiefly for knit underwear, which has heretofore been produced by the mule only. Moreover, a mechanical difficulty which has not been overcome has been experienced in employing ring spindles for spinning upon cops, where the yarn made in one mill must be transported to another part of the country for consumption in hosiery mills. It is, therefore, not probable that there will be a reduction in the number of mules in use, and there may even be an increase; but the economy in the production of yarn by ring spindles, and the fact that the machinery can be operated by labor not so highly skilled as is required for mule spinning, will doubtless cause the tendency to install frame spindles in new spinning and weaving mills to continue. It will be observed that in Rhode Island there has been an actual decrease of ring spindles and an increase of mules. The mills of that state produce a large amount of fine yarn, and many of them are engaged extensively in spinning yarn for knitting mills. The ascendency of the mule in New Jersey is explained by the fact that the industry in that state is for the most part devoted to the production of fine sewing thread, to which the mule is by far the better adapted.

No radical improvement has been made during the past decade in spinning machinery of either kind, nor do the makers of such machinery anticipate great changes in the future. The mule is already a perfect machine, in the sense that it is automatic in every part and that in none of the various operations which it performs without human guidance does any part act as a drag upon others. Inasmuch as the spindles are now operated at as high a speed as is compatible with the spinning of good yarn, it follows that in order to increase the production sensibly it would be necessary to improve the machine not in one part only but in many parts. With respect to the ring spindle the quantity of yarn it can make of any particular count is directly proportioned to the speed of the spindle itself. Ten thousand turns a minute comes near to being the limit of the ring spindle under present conditions, because at a speed above that the travelers are apt to fly off badly. It it estimated that the average speed of the spindle on No. 28 warp yarn is about 9,000 turns. The production of yarn per spindle varies greatly with the number of yarn spun, and the speed varies in almost like proportion—that is, on coarse yarns a spindle running 7,000 turns a minute is running relatively as fast as when it is going 10,000 turns a minute on fine yarns.

During the ten years 1880–1890 the number of frame spindles sold by all manufacturers and placed in the old and new mills was 6,000,193. The corresponding number for the period 1890–1900 was 8,901,408. The total for the period of twenty years exceeds the whole number of ring spindles in the United States, a fact which suggests that substantially all the spindles of older types have been replaced. There were in 1880 in all the Northern states 10,111,387 spindles. No count was taken of the number of mule and frame spindles; but during the ensuing decade 1,569,589 new ring spindles were placed in old frames, and 3,561,896 spindles in new frames were installed, replacing either mules or old-fashioned ring spindles thrown out. At the close of the decade, at the census of 1890, there were in Northern mills 7,255,369 ring spindles. In the last ten years 3,520,640 spindles in new frames have been placed in mills which were built prior to 1890, in addition to 1,742,120 spindles in old frames. Thus more than one-half of the spindles in use ten years ago in Northern mills have since been replaced. The absolute increase of spindles in the South between 1880 and 1890 was 1,011,952. The number of new spindles installed in that part of the country during the same period was 868,708, which, it will be noticed, was 143,244 less than the total increase. During the early years of the Southern development it was not unusual to equip mills with machinery discarded by Northern mills. But in the last decade the numerical increase of frame spindles in the South has been 2,672,128, and the number of new spindles has been 3,283,884, showing that not only were all, or substantially all, the spindles in the new mills of the most modern type, but that about 600,000 old spindles in old mills were replaced by new. Combining the twenty years we find that there is a present total of 4,117,654 frame spindles in the South, and that 4,152,592 new spindles have been supplied to them in that time. The installation of new spindles, by years, and by a geographical division into North and South, is shown by the following table:

TABLE 19.—NUMBER OF FRAME SPINDLES SOLD, SUMMARY: JANUARY 1, 1890, TO JANUARY 1, 1900.

YEARS.	Aggregate.	NORTHERN STATES.				SOUTHERN STATES.			
		Total.	New frames.		Old frames.	Total.	New frames.		Old frames
			To new mills.	To old mills.			To new mills.	To old mills.	
Total	8,901,408	5,617,524	354,764	3,520,640	1,742,120	3,283,884	1,467,624	1,485,459	330,801
1890	784,809	602,890	38,600	356,225	208,065	181,919	57,909	108,260	15,750
1891	656,306	499,999	14,656	298,288	187,055	156,307	18,697	116,425	21,185
1892	866,616	691,510	36,440	415,483	239,587	175,106	60,552	97,282	17,272
1893	1,042,268	823,008	54,656	493,435	274,917	219,260	48,080	135,524	35,656
1894	552,767	377,423	18,812	241,397	117,214	175,344	73,048	84,040	18,256
1895	958,426	669,075	45,120	464,056	159,899	289,351	113,560	145,691	30,100
1896	1,518,099	832,027	128,192	512,089	191,746	686,072	309,060	315,976	61,036
1897	651,427	278,439	11,424	154,160	112,855	372,988	206,468	121,252	45,268
1898	730,312	339,226	4,480	231,063	103,683	391,086	205,491	150,117	35,478
1899	1,140,378	503,927	2,384	354,444	147,099	636,451	374,759	210,892	50,800

CONSUMPTION OF COTTON PER SPINDLE.

The length of yarn spun is, in general, directly proportioned to the speed of spindles. The weight of yarn spun upon spindles of equal efficiency is proportioned to the coarseness or fineness of the yarn. Thus it might happen that spindles of an ancient pattern, producing No. 10 yarn, would consume several times as much raw cotton as an equal number of the high-speed modern spindles would convert into No. 50 yarn. Consequently, in studying the table which shows the average consumption of cotton per spindle in the several divisions of the country, it must be borne in mind that the indication is a resultant of two forces acting in opposite directions.

It will be seen that the tendency is, as it was during the preceding decade, to an enlarged average consumption. In the whole country it has gone up from 70.43 pounds in 1880, to 78.79 pounds in 1890, and 95.43 pounds in 1900. The increase is due chiefly to the greatly enlarged extent of the industry in the South. For although the average increase per spindle in that section is but little more than 3 pounds, yet the number of spindles which consume more than twice the average of New England spindles is three times as great as in 1890, and the proportion of the whole is much larger. Although the circumstance of the excessive increase of spinning in the South as compared with the rest of the country masks the actual facts of the case, yet an analysis of the figures by sections gives some useful indications. Thus in New England there has been an increased relative production of fine yarn, and yet the average annual consumption of cotton has increased by 7 pounds, or rather more than 10 per cent. We may, perhaps, infer that the average efficiency of spindles increased somewhere between one-eighth and one-seventh. On the other hand, the average consumption per spindle in the Southern states increased but a little more than 3 pounds a year, or about 2 per cent. But there was a notable increase in the number of yarn spun in those states. For example, in North Carolina from No. 15.30 to No. 18.90, and in South Carolina from No. 15.13 to No. 19.04. It would require spindles averaging from 20 to 25 per cent greater efficiency to accomplish the conversion of an equal weight of cotton into the finer yarn; and since the actual consumption has also increased, we may fairly conclude that the average efficiency of spindles operated in Southern mills has increased by from 25 to 30 per cent, and that they are on the whole quite up to the average of the whole country. The industry, being stationary, or declining, in the Middle and Western states, except as regards the weaving business in Philadelphia, the facts regarding those divisions of the country call for no special comment. The situation presented is to be found in the following statement:

COTTON CONSUMED PER SPINDLE.

GEOGRAPHIC DIVISIONS.	1900	1890	1880
	Pounds.	*Pounds.*	*Pounds.*
United States	95.43	78.79	70.43
New England states	72.94	65.95	62.72
Middle states	88.24	78.46	78.58
Southern states	164.65	161.41	155.94
Western states	111.07	147.55	171.55

Table 20, which is a continuation of one in the report on the Eleventh Census, is valuable rather in detail and for purposes of comparison than in any general deduction that may legitimately be drawn from it. This will appear from a consideration of the fact that although the number of spindles to each wage-earner has increased 5.64 in New England and 1.42 in the South—the two sections which combined contain 90 per cent of all the spindles in the country—the number of spindles to each wage-earner in the United States as a whole has decreased 1.02. The explanation is a simple one, namely, the marvelous increase of the industry in the South, where the number of persons employed by a mill of a given size is much greater than in the great factory towns of the North. As employees become more skilled and experienced, a greater average amount of machinery can be put in charge of each individual. This result is already beginning to appear in the labor returns

of the southern mills; but a great proportionate increase in the number of spindles in the South, and of hands employed, showing, even at the improved condition, an average number of spindles to hands barely half that in New England, makes the comparison for the whole country, as between 1890 and 1900, misleading.

TABLE 20.—COTTON GOODS, NUMBER OF SPINDLES TO EACH WAGE-EARNER, AND THE AMOUNT PAID FOR LABOR TO EACH SPINDLE, BY STATES GEOGRAPHICALLY ARRANGED: 1880 TO 1900.

STATES.	Year.	WAGE-EARNERS.		Number of spindles.	Number of spindles to each wage-earner.	Labor cost per spindle.
		Average number.	Total wages.			
United States	1900	297,929	$85,126,310	19,008,352	63.80	$4.48
	1890	218,876	66,024,538	14,188,103	64.82	4.65
	1880	172,544	42,040,510	10,653,435	61.74	3.95
New England states	1900	162,294	55,367,541	12,850,987	79.18	4.31
	1890	147,359	47,832,943	10,836,155	73.54	4.41
	1880	125,779	32,170,861	8,632,087	68.63	3.73
Maine	1900	13,723	4,330,297	841,521	61.32	5.15
	1890	13,912	4,213,523	885,762	63.67	4.76
	1880	11,759	2,936,640	695,924	59.18	4.22
New Hampsbire	1900	20,454	6,759,422	1,243,555	60.80	5.44
	1890	19,383	6,242,204	1,195,643	61.69	5.22
	1880	16,395	4,290,960	944,053	57.58	4.55
Vermont	1900	1,015	259,758	100,028	98.55	2.60
	1890	724	204,538	71,591	98.88	2.86
	1880	721	161,748	55,081	76.40	2.94
Massachusetts	1900	92,085	32,327,443	7,784,687	84.54	4.15
	1890	75,544	25,118,365	5,824,518	77.10	4.31
	1880	61,246	15,828,571	4,236,084	69.17	3.74
Rhode Island	1900	21,823	7,297,119	1,880,622	86.18	3.88
	1890	24,576	7,814,767	1,924,486	78.31	4.06
	1880	21,174	5,320,303	1,764,569	83.34	3.02
Connecticut	1900	13,194	4,393,502	1,000,574	75.84	4.39
	1890	13,220	4,239,546	934,155	70.66	4.54
	1880	14,484	3,632,639	936,376	64.65	3.88
Middle states	1900	34,843	11,396,710	1,647,251	47.28	6.92
	1890	31,841	10,184,589	1,633,722	51.31	6.23
	1880	28,118	6,613,260	1,391,164	49.48	4.75
New York	1900	8,659	2,582,394	720,268	83.18	3.59
	1890	8,316	2,448,031	606,796	72.97	4.03
	1880	9,227	1,994,755	561,658	60.87	3.55
New Jersey	1900	5,518	1,887,119	431,730	78.24	4.37
	1890	5,632	1,984,659	374,442	66.48	5.30
	1880	4,179	1,156,961	232,221	55.57	4.98
Pennsylvania	1900	15,567	5,602,339	306,637	19.70	18.27
	1890	12,666	4,388,017	439,638	34.71	9.98
	1880	9,879	2,502,688	425,391	43.06	5.88
Delaware	1900	372	138,844	34,552	92.88	4.02
	1890	971	308,346	53,916	55.53	5.72
	1880	791	192,727	46,188	58.39	4.17
Maryland	1900	4,727	1,186,014	154,064	32.59	7.70
	1890	4,256	1,055,536	158,930	37.34	6.64
	1880	4,042	766,129	125,706	31.10	6.09
Southern states	1900	97,494	17,501,648	4,298,188	44.09	4.07
	1890	36,415	7,116,865	1,554,000	42.67	4.58
	1880	16,317	2,750,986	542,048	33.22	5.08
Virginia	1900	2,931	668,556	126,827	43.27	5.27
	1890	1,990	373,993	94,294	47.38	3.97
	1880	1,085	169,789	44,340	40.87	3.83
North Carolina	1900	30,273	5,127,087	1,133,432	37.44	4.52
	1890	8,515	1,475,932	337,786	39.67	4.37
	1880	3,232	439,659	92,385	28.58	4.76
South Carolina	1900	30,201	5,066,840	1,431,349	47.39	3.54
	1890	8,071	1,510,494	332,784	41.23	4.54
	1880	2,018	380,844	82,334	40.80	4.63
Georgia	1900	18,283	3,566,951	815,545	44.61	4.37
	1890	10,314	2,167,036	445,452	43.19	4.86
	1880	6,215	1,135,184	198,656	31.96	5.71
Kentucky	1900	1,351	280,407	66,633	49.32	4.21
	1890	818	170,573	42,942	52.50	3.97
	1880	348	63,850	9,022	25.93	7.08
Tennessee	1900	2,108	422,935	123,896	58.77	3.41
	1890	2,124	444,573	97,524	45.92	4.56
	1880	1,015	161,071	35,736	35.21	4.51
Alabama	1900	8,332	1,482,226	411,328	49.37	3.60
	1890	2,088	402,908	79,234	37.95	5.09
	1880	1,448	239,998	49,432	34.14	4.86

TABLE 20.—COTTON GOODS, NUMBER OF SPINDLES TO EACH WAGE-EARNER, AND THE AMOUNT PAID FOR LABOR TO EACH SPINDLE, BY STATES GEOGRAPHICALLY ARRANGED: 1880 TO 1900—Continued.

STATES.	Year.	WAGE-EARNERS.		Number of spindles.	Number of spindles to each wage-earner.	Labor cost per spindle.
		Average number.	Total wages.			
Mississippi	1900	1,675	$339,546	75,122	44.85	$4.52
	1890	1,154	263,997	57,004	49.40	4.63
	1880	695	133,214	18,568	26.72	7.17
Texas	1900	984	253,630	48,756	49.55	5.20
	[1] 1890					
	[1] 1880					
All other Southern states[2]	1900	1,356	293,470	65,300	48.16	4.49
	1890	1,341	307,359	66,980	49.95	4.59
	1880	261	27,377	11,575	44.35	2.37
Western states	1900	3,298	860,411	211,926	64.26	4.06
	1890	3,261	890,141	164,226	50.36	5.42
	1880	2,330	505,403	88,136	37.83	5.73
Ohio	1900	106	27,861			
	1890	554	161,613	16,560	29.89	9.76
	1880	481	104,500	13,328	27.71	7.84
Indiana	1900	1,421	323,949	102,488	72.12	3.16
	1890	1,309	310,342	74,604	56.99	4.16
	1880	708	162,829	33,396	47.17	4.88
Illinois	[1] 1900					
	1890	430	123,986	21,800	50.70	5.69
	[1] 1880					
Wisconsin	1900	347	80,567	21,496	61.95	3.75
	1890	490	131,170	32,592	66.51	4.02
	[1] 1880					
Missouri	[1] 1900					
	[1] 1890					
	1880	508	97,680	19,312	38.02	5.06
All other Western states[2]	1900	1,424	428,034	87,942	61.76	4.87
	1890	478	163,030	18,670	39.06	8.73
	1880	633	140,394	22,100	34.91	6.35

[1] Included in "all other Southern states."
[2] Includes establishments distributed as follows: Southern states—1900, Arkansas, 2; Louisiana, 2; West Virginia, 1; 1890, Arkansas, 2; Louisiana, 2; Texas, 1; 1880, Florida, 1; Arkansas, 2; Louisiana, 2; Texas, 2. Western states—1900, California, 1; Colorado, 1; Illinois, 1; Missouri, 2; Nebraska, 1; 1890, California, 1; Iowa, 2; Missouri, 1; 1880, Illinois, 2; Michigan, 1; Wisconsin, 1; Minnesota, 1; Utah, 1.

The figures examined in detail are nevertheless instructive and useful. It will be seen that the number of spindles to each wage-earner has increased in three of the four geographical divisions and in most of the states. The decline in the Middle states is to be ascribed chiefly to the fact mentioned elsewhere—that the industry in Pennsylvania is becoming more and more a weaving industry and that the number of spindles has declined. This feature becomes almost startlingly apparent in the last column of the table, where the labor cost per spindle is correctly reported as more than twice that of any other state. Indeed, the character of the industry in Pennsylvania differs so widely from that of any other state that it is not properly included in any table intended to show averages for the whole country.

With reference to the "labor cost per spindle" it is to be said that it shows upon the whole an increase, by states, by geographical divisions, and for the United States. It thus indicates a certain increase of wages, as the column showing the relation of the number of spindles to that of wage-earners indicates an increase of skill. But even here it is necessary to exercise caution in making deductions, for the problem is complicated by the fact that, premising an equal amount of skill on the part of operatives, a coarse-goods mill requires more machinery and more hands for a given amount of output than a fine-goods mill. The average spinning in the South is coarser than that in New England, and consequently a larger force is needed. Moreover, the matter of the labor cost per spindle is complicated by considerations of the hours of labor in a working day, of the proportion of women and children, as compared with men, employed, and of other matters of less importance than these. The table invites analysis by students of industrial problems, but it would be hazardous to base any conclusions whatever upon it without a careful weighing of special conditions in each state—in some cases the conditions in individual manufacturing cities.

LOOMS.

Inasmuch as the American cotton manufacturing industry is essentially a weaving as well as a spinning industry, it follows naturally that the number of looms employed keeps pace practically with the corresponding number of spindles. Against an increase of 34 per cent in spindles, during the decade, there has been an increase of 38.7 per cent in the number of looms. In both cases, "cotton goods" only in 1900 are compared with all cotton manufactures, including "cotton small wares" in 1890. The total number of looms in 1900

was 450,682, compared with 324,866 in 1890. There was a numerical increase of 48,769 in New England, of 1,060 in the Middle states, of 73,744 in the Southern states, and of 2,243 in the Western states.

An analysis of the looms as classified in the following table brings out no important facts which are not deducible from other statistics here presented, but it is confirmatory of the inferences to be drawn from them. For example, it appears from the statement of looms operated upon fancy weaves, that there was an increase of 22,453 in the number of such looms, and that 12,735 of the increase was in New England mills and 7,673 in mills of the Middle states; which is in accordance with the fact of a large increase in the fine spinning and weaving of the one section and of a wonderful growth of the weaving of upholstery and similar goods in Philadelphia. On the other hand, of the great numerical increase of 73,744 looms in the Southern states, 66,130 represent plain looms of all widths, compared with an increase of 33,621 plain looms in the New England states. It is an interesting fact that the increase in the number of looms in the whole country operated in the weaving of goods more than 36 inches wide exceeds the increase in the number of looms making goods of less width.

TABLE 21.—COTTON GOODS, NUMBER AND CLASSIFICATION OF LOOMS, BY GEOGRAPHIC DIVISIONS: 1890 AND 1900.

GEOGRAPHIC DIVISIONS.	Year.	NUMBER OF LOOMS.								
		Total.	On plain cloths.				On twills and sateens.	On fancy weaves.	On tapes and other narrow goods.[1]	On bags and other special fabrics.
			Less than 28 inches wide.	28 to 32 inches wide.	32 to 36 inches wide.	36 inches wide and over.				
United States	1900	450,682	35,601	98,995	79,349	126,082	58,839	45,686	1,709	4,421
	1890	324,866	23,648	91,862	55,356	71,591	53,726	28,233	.....	5,450
New England states	1900	298,885	16,765	77,326	37,722	84,916	47,080	31,635	1,586	1,855
	1890	250,116	12,609	72,928	35,063	62,508	46,316	18,900	.....	1,762
Middle states	1900	36,134	6,442	3,023	3,501	8,035	3,403	10,031	123	1,576
	1890	35,074	5,196	10,601	3,628	5,708	4,930	2,358	.....	2,653
Southern states	1900	110,010	12,374	17,930	34,446	32,323	8,356	3,856	.....	725
	1890	36,266	5,803	8,309	13,956	2,875	2,442	1,975	.....	906
Western states	1900	5,653	20	716	3,680	808	.....	164	.....	265
	1890	3,410	40	24	2,709	500	8	.....	.....	129

[1] Included with bags and other special fabrics in 1890.

Table 22 presents for 1900 the number and capacity of spinning mills, weaving mills, and mills which do both spinning and weaving, by states geographically arranged.

Table 22 furnishes a basis for future comparisons, as well as showing the situation with respect to the operations carried on in the cotton mills of the United States. It will be seen from this table that, of the total number of establishments, more than half both spin and weave. In the matter of capacity the proportion is vastly greater, as 83.6 per cent of the spindles, and 96 per cent of the looms, are installed in what may be termed complete mills. Even these large proportions would be increased were the mills of the Middle states eliminated. More than one-third of all the spindles and looms in those states are in mills which spin only, and more than one-third of the looms in mills which weave only. This circumstance is due to the fact that half the product of New Jersey mills is sewing cotton, and that weaving is the principal feature of the industry in Pennsylvania. Excluding the Middle states, the percentage of spindles in spinning and weaving mills is 85 per cent and that of looms is almost 99 per cent. The figures for the Southern states indicate a tendency to erect yarn mills. In North Carolina more than two-fifths of the spindles are the equipment of such mills, and the proportion is large in some of the other Southern states also.

TABLE 22.—COTTON GOODS, NUMBER AND CAPACITY OF SPINNING MILLS, WEAVING MILLS, AND MILLS WHICH DO BOTH SPINNING AND WEAVING, BY STATES GEOGRAPHICALLY ARRANGED: 1900.

STATES.	Number of establishments.	SPINNING AND WEAVING MILLS.			SPINNING MILLS.		WEAVING MILLS.		Number of establishments having no spindles or looms for spinning or weaving.
		Capacity.			Capacity.		Capacity.		
		Number.	Number of spindles.	Number of looms.	Number.	Number of spindles.	Number.	Number of looms.	
United States	973	502	15,882,095	432,959	274	3,126,257	168	17,723	29
New England states	332	223	11,233,326	295,710	76	1,617,661	17	3,175	16
Maine	15	13	837,021	23,229	1	4,500	1	137	.....
New Hampshire	25	20	1,235,907	35,123	3	7,648	.....	.....	.....
Vermont	5	3	81,576	2,099	2	18,452	.....	.....	.....
Massachusetts	163	110	6,712,998	176,554	36	1,071,689	10	2,726	7
Rhode Island	71	44	1,469,404	39,366	20	411,218	3	106	4
Connecticut	55	33	896,420	19,339	14	104,154	3	206	5
Middle states	225	46	1,072,154	23,724	29	575,097	138	12,410	12
New York	34	14	626,040	14,110	7	94,228	10	435	3
New Jersey	20	3	101,688	1,576	4	330,042	10	650	3
Pennsylvania	154	17	168,810	4,791	17	137,827	114	11,024	6
Delaware	3	2	21,552	738	1	13,000	.....	.....	.....
Maryland	14	10	154,064	2,509	.....	.....	4	301	.....
Southern states	400	222	3,366,439	108,044	168	931,749	10	1,966	.....
West Virginia	1	.....	.....	.....	.....	.....	1	19	.....
Virginia	7	7	126,827	4,608	.....	.....	.....	.....	.....
North Carolina	177	75	649,442	23,992	94	483,990	8	1,477	.....
South Carolina	80	57	1,304,181	42,193	22	127,168	1	470	.....
Georgia	67	42	652,611	19,393	25	162,934	.....	.....	.....
Kentucky	6	2	37,592	991	4	29,041	.....	.....	.....
Tennessee	17	9	97,558	2,995	8	26,338	.....	.....	.....
Alabama	31	18	325,560	8,549	13	85,768	.....	.....	.....
Mississippi	6	5	73,872	2,464	1	1,250	.....	.....	.....
Arkansas	2	2	9,700	257	.....	.....	.....	.....	.....
Louisiana	2	2	55,600	1,584	.....	.....	.....	.....	.....
Texas	4	3	33,496	1,018	1	15,260	.....	.....	.....
Western states	16	11	210,176	5,481	1	1,750	3	172	1
Ohio	3	.....	.....	.....	.....	.....	2	158	1
Indiana	4	4	102,488	2,712	.....	.....	.....	.....	.....
Illinois	1	1	31,488	700	.....	.....	.....	.....	.....
Wisconsin	3	2	21,496	577	.....	.....	1	14	.....
Missouri	2	1	11,904	356	1	1,750	.....	.....	.....
Nebraska	1	1	15,488	416	.....	.....	.....	.....	.....
Colorado	1	1	17,312	480	.....	.....	.....	.....	.....
California	1	1	10,000	240	.....	.....	.....	.....	.....

MERCERIZATION.

During the past ten years the process known as mercerizing has been introduced, or, more strictly, reintroduced, as an adjunct of the cotton manufacturing industry. The process derives its name from its discoverer, John Mercer, an Englishman, who was born in 1791 and died in 1864. Mercer was a man of humble origin, by trade a handloom weaver, and self-taught. Entering a print works as an ordinary workman, he became interested in chemical processes, was made experimental chemist to the works, and in a short time introduced several new styles in calico printing. He was the first to prepare sulphated oil, which revolutionized the turkey-red industry; was the inventor of the blue-print photographic process, and even devised and improved several pharmaceutical preparations. In 1852 he was elected a Fellow of the Royal Society. About the year 1845 or 1846 appeared the first notice of the mercerizing process, and it was patented in 1850. It excited great attention at the first world's fair, in London, in 1851, and great commercial success was anticipated for it; but for various reasons it did not become successful in Mercer's lifetime, nor, in its original form, at any time.

The process of mercerizing, proper, consists in treating vegetable fiber, chiefly cotton, in the condition of yarn or of woven goods, to the action of caustic soda dissolved in water, and treating it subsequently with pure water and with dilute sulphuric acid for the purpose of washing out or extracting chemically the soda that remains in the yarn or fabric. The process effectuates both a chemical and a physical change in the constitution of the fiber. The wing of the cottonseed is pure cellulose, the chemical symbol of which is $C_{12}H_{20}O_{10}$—12 atoms of carbon, 20 of hydrogen, and 10 of oxygen. The caustic soda and the water in which it is held in solution unite with the cellulose; but the soda is afterward removed by washing with water and by "souring" with acid, and that which remains is hydrated cellulose—that is, cellulose combined with water. It is probably not strictly accurate to say that the cellulose and water are chemically combined, since the water contained may be removed by drying without restoring the

cellulose to its original condition; but, on the other hand, after the desiccation the mercerized yarn or cloth will reabsorb water from the atmosphere naturally.

The structural change in the fiber is a marked one. The filament of cotton is a flattened tube or band, the sides of which are pressed closely together, leaving a central cavity which is enlarged at each edge of the flattened tube. It is opaque, and the surface is not smooth. The fiber has also a slight natural twist. All these characteristics are modified by the mercerizing process. The tube becomes rounded into cylindrical shape; the cavity is made smaller and the walls of the tube thicker; the surface is made smoother and the opacity is diminished; and the fiber acquires a spiral form. These are not the only physical changes introduced by the process, for there is a perceptible shrinkage in the length of either yarn or cloth treated by Mercer's formula. As will presently be noticed, the modern method overcomes the shrinkage, but as originally introduced the loss in linear dimension varied from 15 to 25 per cent. Moreover, the weight, and consequently the specific gravity, of the yarn or fabric is increased, as is also the strength of the material, this last gain varying from 35 to nearly 70 per cent, according to the conditions under which the mercerizing is done. Another important result of the process is that mercerized cotton has a much greater affinity for certain dyes and mordants than cotton which has not been so treated.

The changes heretofore mentioned were those which Mercer specified in his application for a patent. The chief advantages which he claimed were the greater strength of yarn or cloth and the greater affinity for dyes. These are not the advantages which have caused the reintroduction of the process. Reference has been made to the fact that mercerizing causes a contraction of the fiber and a loss of length. Advantage was taken of the shrinkage to produce crepon effects in cloth, particularly in union cloth, but it was not availed of to any large extent. It has been discovered, however, that if the mercerizing be done under tension—that is, if it be simply held from shrinking, but not stretched, while the material undergoing treatment is immersed in the caustic bath and while the alkali is being removed by water and acid—the fiber becomes more translucent, the surface smoother, and the yarn or woven goods treated acquire a luster similar, and not greatly inferior, to that of silk. The same result can be produced by stretching the material operated upon to its original length immediately after it has been subjected to the caustic bath, and before it has lost its pliable condition. The acquisition of a glossy appearance by mercerized goods was noticed in the early days of the process, but it is only recently that the increased luster imparted by holding the material from shrinking caused a revival of the manufacture.

The improved process in mercerization while the goods are in a state of tension is the subject of protracted patent litigation which has not yet been brought to a decision. The process itself is a simple one, but must be conducted with great care. As applied to yarn it consists in passing it through the bath between rollers which prevent all contraction, and then through the water bath and a weak solution of sulphuric acid under the same conditions. The rollers serve also the purpose of squeezing out the caustic, the water, and the acid, and so facilitating and rendering complete the removal of all chemicals which might cause a contraction after the tension is relaxed.

The uses to which mercerized material may be put are various. The process has not been applied with success to ordinary upland cotton, but only to Egyptian and sea-island cotton, which are naturally somewhat silky. These are the varieties of cotton which are employed in the production of underwear and the finest of woven goods, which are made much more beautiful by the luster imparted as well as by the brilliancy of the dyeing. It is believed, however, that the fact that mercerized yarn loses something of elasticity in gaining strength, is against its general availability in the manufacture of hosiery and knit goods.

The amount of yarn mercerized in cotton mills during the census year was 809,468 pounds. In dyeing and finishing establishments 868,851 pounds of yarn and 7,973,506 square yards of cloth were mercerized. The total additional value given to yarn and cloth by mercerizing, in all establishments, was $679,490.

Table 23 presents a comparative summary of the entire industry, cotton goods and cotton small wares, by states and territories, geographically arranged for the several censuses from 1840 to 1900, inclusive; and Table 24 presents the detailed statistics of cotton goods for 1900.

TABLE 23.—COMPARATIVE SUMMARY, COTTON GOODS AND COTTON SMALL WARES,

		Year.	Number of establishments.	Capital.	SALARIED OFFICIALS, CLERKS, ETC.		AVERAGE NUMBER OF WAGE-EARNERS AND TOTAL WAGES.				
							Total.		Men, 16 years and over.	Women, 16 years and over.	Children, under 16 years.
					Number.	Salaries.	Average number.	Wages.			
1	United States	1900	1,055	$467,240,157	4,902	$7,350,199	302,861	$86,689,752	135,721	126,882	40,258
		1890	905	354,020,843	[1] 2,709	[1] 3,464,734	218,876	66,024,538	88,837	106,607	23,432
		1880	756	208,280,346	(2)	(2)	[3] 174,659	42,040,510	61,760	84,558	28,341
		1870	956	140,706,291	(2)	(2)	135,369	39,044,132	42,790	69,637	22,942
		1860	1,091	98,585,269	(2)	(2)	122,028	23,940,108	46,859	75,169	(2)
		1850	1,094	74,500,931	(2)	(2)	92,286	(5)	33,150	59,136	(2)
		1840	1,240	51,102,359	(2)	(2)	72,119	(4)	(2)	(2)	(2)
2	New England states	1900	364	276,089,821	2,061	3,806,248	164,944	56,258,205	79,014	74,882	11,048
		1890	402	243,153,249	1,359	2,075,648	147,359	47,832,943	63,749	73,445	10,165
		1880	439	156,754,690	.....	.....	127,185	32,170,861	46,897	62,568	17,720
		1870	508	100,103,770	.....	.....	94,775	28,740,788	30,203	50,805	13,767
		1860	570	69,260,279	.....	.....	81,403	16,720,920	29,886	51,517	.....
		1850	564	53,832,430	.....	.....	61,893	.....	20,745	41,148	.....
		1840	674	34,931,399	.....	.....	46,834	.....	.....	.....	.....
3	Maine	1900	15	21,087,190	100	231,815	13,723	4,330,297	6,197	6,760	766
		1890	23	20,850,754	80	158,950	13,912	4,213,523	5,193	7,856	863
		1880	24	15,292,078	.....	.....	11,864	2,936,640	3,962	6,481	1,421
		1870	23	9,839,685	.....	.....	9,439	2,565,197	2,606	6,246	587
		1860	19	6,018,325	.....	.....	6,764	1,368,888	1,828	4,936	.....
		1850	12	3,329,700	.....	.....	3,739	.....	780	2,959	.....
		1840	6	1,398,000	.....	.....	1,414	.....	.....	.....	.....
4	New Hampshire	1900	23	29,261,835	175	370,777	20,454	6,759,422	9,229	10,362	863
		1890	27	26,801,933	150	186,880	19,383	6,242,204	8,144	10,345	894
		1880	36	19,877,084	.....	.....	16,529	4,290,960	5,235	9,596	1,698
		1870	36	13,332,710	.....	.....	12,542	3,989,853	3,752	7,490	1,300
		1860	44	12,586,880	.....	.....	12,730	2,883,804	3,829	8,901	.....
		1850	44	10,950,500	.....	.....	12,122	.....	2,911	9,211	.....
		1840	58	5,523,200	.....	.....	6,991	.....	.....	.....	.....
5	Vermont	1900	5	1,932,983	20	26,579	1,015	259,758	438	495	82
		1890	6	1,431,986	13	16,204	724	204,538	325	309	90
		1886	7	936,096	.....	.....	735	161,748	214	350	171
		1870	8	670,000	.....	.....	451	125,000	125	242	84
		1860	8	271,200	.....	.....	379	78,468	157	222	.....
		1850	9	202,500	.....	.....	241	.....	94	147	.....
		1840	7	118,100	.....	.....	262	.....	.....	.....	.....
6	Massachusetts	1900	177	156,289,451	1,104	2,046,052	92,515	32,478,697	45,245	41,298	5,972
		1890	187	128,838,837	669	1,112,302	75,544	25,118,365	33,101	38,352	4,091
		1880	175	72,291,601	.....	.....	61,844	15,828,571	22,774	31,497	7,573
		1870	191	44,714,375	.....	.....	43,512	13,589,305	13,694	24,065	5,753
		1860	217	33,704,674	.....	.....	38,451	7,798,476	13,691	24,760	.....
		1850	213	28,455,630	.....	.....	28,730	.....	9,293	19,437	.....
		1840	278	17,414,099	.....	.....	20,928	.....	.....	.....	.....
7	Rhode Island	1900	87	40,150,824	380	734,465	24,032	8,033,007	10,980	10,619	2,433
		1890	94	38,798,161	256	316,375	24,576	7,814,767	10,507	10,887	3,182
		1880	115	28,047,331	.....	.....	21,474	5,320,303	8,344	9,199	3,931
		1870	139	18,836,300	.....	.....	16,745	5,224,650	5,583	8,028	3,134
		1860	153	10,052,200	.....	.....	14,077	2,847,804	6,353	7,724	.....
		1850	158	6,075,000	.....	.....	10,875	.....	4,959	5,916	.....
		1840	209	7,326,000	.....	.....	12,086	.....	.....	.....	.....
8	Connecticut	1900	57	27,367,538	282	396,560	13,205	4,397,024	6,925	5,348	932
		1890	65	26,431,578	191	284,937	13,220	4,239,546	6,479	5,696	1,045
		1880	82	20,310,500	.....	.....	14,739	3,632,639	6,368	5,445	2,926
		1870	111	12,710,700	.....	.....	12,086	3,246,783	4,443	4,734	2,909
		1860	129	6,627,000	.....	.....	9,002	1,743,480	4,028	4,974	.....
		1850	128	4,219,100	.....	.....	6,186	.....	2,708	3,478	.....
		1840	116	3,152,000	.....	.....	5,153	.....	.....	.....	.....
9	Middle states	1900	272	61,985,519	1,015	1,423,138	37,050	12,058,932	15,012	17,584	4,454
		1890	239	51,676,249	503	579,284	31,841	10,184,589	11,580	16,240	4,021
		1880	139	31,014,759	.....	.....	28,367	6,613,260	9,161	13,188	6,018
		1870	274	27,723,306	.....	.....	28,974	7,994,470	8,466	14,126	6,382
		1860[6]	340	18,789,069	.....	.....	29,078	5,464,772	12,212	16,866	.....
		1850[6]	352	12,970,445	.....	.....	19,699	.....	8,274	11,425	.....
		1840	298	11,583,882	.....	.....	18,187	.....	.....	.....	.....
10	New York	1900	52	15,060,149	198	263,150	9,259	2,745,848	4,240	4,208	811
		1890	42	13,290,745	85	115,699	8,316	2,448,031	3,246	4,034	1,036
		1880	36	11,399,638	.....	.....	9,305	1,994,755	3,012	4,201	2,092
		1870	81	8,511,336	.....	.....	9,144	2,626,131	2,608	4,546	1,990
		1860	79	5,383,479	.....	.....	7,659	1,405,292	3,107	4,552	.....
		1850	86	4,176,920	.....	.....	6,320	.....	2,632	3,688	.....
		1840	117	4,900,772	.....	.....	7,407	.....	.....	.....	.....
11	New Jersey	1900	25	14,399,291	157	269,278	5,681	1,930,940	2,144	2,869	668
		1890	17	13,519,972	51	69,623	5,632	1,984,659	1,828	3,391	413
		1880	17	3,807,750	.....	.....	4,222	1,156,961	1,223	2,291	708
		1870	27	2,762,000	.....	.....	3,514	1,009,351	1,086	1,745	683
		1860	44	1,320,550	.....	.....	2,534	468,336	1,010	1,524	.....
		1850	21	1,483,500	.....	.....	1,712	.....	616	1,096	.....
		1840	43	1,722,810	.....	.....	2,408	.....	.....	.....	.....
12	Pennsylvania	1900	178	24,331,965	565	741,923	17,011	6,057,286	7,074	8,120	1,817
		1890	158	15,884,936	294	299,071	12,666	4,388,017	4,991	6,258	1,417
		1880	59	10,331,985	.....	.....	9,957	2,502,688	3,413	4,457	2,087
		1870	138	12,550,720	.....	.....	12,730	3,496,986	3,859	6,097	2,774
		1860	185	9,203,040	.....	.....	14,994	2,768,340	6,412	8,582	.....
		1850	208	4,528,925	.....	.....	7,663	.....	3,564	4,099	.....
		1840	106	3,325,400	.....	.....	5,522	.....	.....	.....	.....

[1] Includes proprietors and firm members, with their salaries; number only reported in 1900, but not included in this table. (See Table 24.)
[2] Not reported separately.
[3] Includes 2,115 officers and clerks for whom no salaries are reported.

BY STATES AND TERRITORIES GEOGRAPHICALLY ARRANGED: 1840 TO 1900.

MACHINERY.		Miscellaneous expenses.	MATERIALS USED.				All other materials.	Value of products.	
			Total cost.	Cotton.					
Spindles.	Looms.			Bales.	Pounds.	Cost.			
19,050,952	455,752	$22,112,678	$176,551,527	3,646,708	1,817,643,390	$125,169,616	$51,381,911	$339,200,320	
14,188,103	324,866	16,716,524	154,912,979	2,261,600	1,117,945,776	117,392,576	37,520,403	267,981,724	
10,653,435	225,759	(4)	102,206,347	1,570,344	750,343,981	86,945,725	15,260,622	192,090,110	
7,132,415	157,310	(4)	111,736,936	(4)	398,308,257	(2)	(2)	177,489,739	1
5,235,727	126,313	(4)	57,285,534	(4)	422,704,975	(2)	(2)	115,681,774	
(4)	(4)	(4)	34,835,056	641,240	(4)	(2)	(2)	61,869,184	
2,284,631	(4)	(4)	(4)	(4)	(4)	(4)	(4)	46,350,453	
12,891,787	392,018	13,286,637	93,147,668	1,829,678	940,908,114	66,039,133	27,108,535	191,690,913	
10,836,155	250,116	12,086,430	101,101,446	1,425,958	714,691,714	76,749,130	24,352,316	181,112,453	
8,632,087	184,701		74,290,026	1,129,498	541,373,880	63,169,434	11,120,592	143,363,030	
5,498,308	114,982		78,816,481		275,625,278		(2)	124,959,053	2
3,858,962	93,344		37,670,782		283,701,306		(2)	79,359,900	
			23,800,904	430,603			(2)	42,040,178	
							(4)	31,611,880	
1,597,394									
841,521	23,366	1,440,425	7,036,287	157,428	79,765,573	5,463,293	1,572,994	14,631,086	
885,762	21,825	1,185,336	8,446,736	132,504	65,717,252	7,053,168	1,393,568	15,316,909	
695,924	15,971		7,320,152	112,381	54,185,061	6,234,901	1,085,251	13,319,363	
459,772	9,902		6,746,780		25,887,771		(2)	11,844,181	3
281,056	6,877		3,319,335		23,733,165		(2)	6,235,623	
			1,573,110	31,531			(2)	2,596,356	
							(4)	970,397	
29,736									
1,243,555	35,123	1,502,420	11,960,102	271,629	136,988,647	9,413,526	2,546,576	22,998,249	
1,195,643	31,850	1,340,222	12,962,939	214,034	107,319,124	11,203,742	1,759,197	21,958,002	
944,053	24,299		10,146,904	157,673	76,386,499	8,629,063	1,517,841	17,953,403	
749,843	19,091		12,318,867		41,469,719		(2)	16,999,672	4
636,788	17,336		7,128,196		51,002,324		(2)	13,699,994	
			4,839,429	83,026			(2)	8,830,619	
							(4)	4,142,304	
195,173									
100,028	2,099	43,282	526,235	13,048	6,828,403	432,455	93,780	999,886	
71,591	1,175	59,893	542,065	8,954	4,647,389	498,348	43,717	914,685	
55,081	1,180		508,297	7,404	3,562,088	458,607	49,690	855,864	
28,768	628		292,269		1,235,652		(2)	546,510	5
17,600	362		181,030		1,447,250		(2)	357,450	
			114,415	2,243			(2)	196,100	
							(4)	113,000	
7,254									
7,784,687	179,582	7,275,111	54,389,045	1,085,236	560,984,204	38,916,998	15,472,047	111,125,175	
5,824,518	133,227	6,675,285	56,586,283	772,520	386,767,326	40,870,307	15,715,976	100,202,882	
4,236,084	95,321		35,994,109	574,857	273,718,889	31,107,154	2,886,955	72,289,518	
2,619,541	55,343		37,371,599		130,654,040		(2)	59,493,153	6
1,673,498	42,779		17,214,592		134,012,759		(2)	38,004,255	
			11,289,309	223,607			(2)	19,712,461	
							(4)	16,553,423	
665,095									
1,920,522	42,298	1,736,590	11,697,461	193,226	99,475,478	7,386,339	4,311,122	26,435,675	
1,924,486	43,106	1,871,057	14,347,672	193,291	97,982,155	11,147,080	3,200,592	27,310,499	
1,764,569	29,669		12,291,437	167,480	81,137,172	10,457,770	1,833,667	22,875,111	
1,043,242	18,075		13,268,315		44,630,787		(2)	22,049,203	7
814,554	17,315		5,799,223		41,614,797		(2)	12,151,191	
			3,484,579	50,713			(2)	6,447,120	
							(4)	7,116,792	
518,817									
1,001,474	19,550	1,288,809	7,538,538	109,111	56,865,809	4,426,522	3,112,016	15,500,842	
934,155	18,933	954,637	8,215,751	104,655	52,257,968	5,976,485	2,239,266	15,409,476	
936,376	18,261		8,029,127	109,703	52,384,171	6,281,939	1,747,188	16,069,771	
597,142	11,943		8,818,651		31,747,309		(2)	14,026,334	8
435,466	8,675		4,028,406		31,891,011		(2)	8,911,387	
			2,500,062	39,483			(2)	4,257,522	
							(4)	2,715,964	
181,319									
1,647,251	38,060	3,832,839	25,280,096	292,288	145,353,968	10,596,029	14,684,067	48,961,806	
1,633,722	35,074	2,088,631	23,044,093	261,154	128,184,288	13,906,748	9,137,345	40,664,476	
1,391,164	27,318		16,191,758	228,729	109,321,428	13,258,526	2,933,232	29,389,286	
1,246,045	34,974		23,793,595		80,937,966		(2)	38,597,765	9
1,042,480	25,185		13,928,671		87,113,715		(2)	26,534,700	
			7,349,795	125,392			(2)	12,782,718	
							(4)	12,222,200	
487,571									
720,268	14,737	943,848	5,718,295	102,590	52,243,049	3,743,267	1,975,028	10,788,003	
606,796	13,466	724,405	5,564,251	78,824	39,522,057	4,270,665	1,293,586	9,777,295	
561,658	12,403		4,652,745	64,614	31,656,594	3,981,106	671,639	8,266,836	
492,573	17,218		6,990,626		24,783,351		(2)	11,178,211	10
348,584	7,885		3,061,105		23,945,627		(2)	6,676,878	
			1,985,973	37,778			(2)	3,591,989	
							(4)	3,640,237	
211,659									
431,730	2,276	428,384	3,157,768	29,644	15,287,868	1,411,743	1,746,025	6,930,766	
374,442	3,673	194,474	3,028,933	25,723	12,301,151	1,816,468	1,212,465	5,902,615	
232,221	3,180		2,018,175	21,069	9,950,609	1,319,422	698,753	4,548,275	
200,580	2,176		1,964,758		7,920,035		(2)	4,015,768	11
123,548	1,567		1,165,435		9,094,649		(2)	2,217,728	
			666,645	14,437			(2)	1,109,524	
							(4)	2,086,104	
63,744									
306,637	17,499	2,057,143	13,176,718	76,425	36,549,533	2,690,532	10,486,186	25,447,697	
439,638	13,974	730,125	10,485,247	92,705	44,629,588	4,371,693	6,113,554	18,431,773	
425,391	8,488		6,105,700	83,997	40,311,809	4,749,428	1,356,272	11,021,054	
434,246	12,862		10,724,052		32,953,318		(2)	17,490,080	12
476,979	12,994		7,386,213		37,496,203		(2)	13,650,114	
			3,152,530	44,162			(2)	5,322,262	
							(4)	5,013,007	
146,494									

[4] Not reported.
[5] This item was not fully reported at the census of 1850.
[6] Includes 1 establishment in the District of Columbia which is not shown separately.

TABLE 23.—COMPARATIVE SUMMARY, COTTON GOODS AND COTTON SMALL WARES,

		Year.	Number of establishments.	Capital.	SALARIED OFFICIALS, CLERKS, ETC.		AVERAGE NUMBER OF WAGE-EARNERS AND TOTAL WAGES.				
							Total.		Men, 16 years and over.	Women, 16 years and over.	Children, under 16 years.
					Number.	Salaries.	Average number.	Wages.			
	Middle states—Continued.										
13	Delaware	1900	3	$484,858	11	$15,449	372	$138,844	108	222	42
		1890	7	1,683,803	16	15,982	971	308,346	266	488	217
		1880	8	874,570	.....	.....	797	192,727	243	362	192
		1870	6	1,165,000	.....	.....	726	190,069	225	286	215
		1860	11	582,500	.....	.....	1,109	220,224	520	589	.....
		1850	12	460,100	.....	.....	838	.....	413	425	.....
		1840	11	330,500	.....	.....	566	.....	.....	.....	.....
14	Maryland[2]	1900	14	7,709,256	84	133,338	4,727	1,186,014	1,446	2,165	1,116
		1890	15	7,296,793	57	78,909	4,256	1,055,536	1,249	2,068	938
		1880	19	4,600,816	.....	.....	4,086	766,129	1,270	1,877	939
		1870	22	2,734,250	.....	.....	2,860	671,933	688	1,452	720
		1860	21	2,299,500	.....	.....	2,782	602,580	1,163	1,619	.....
		1850	25	2,321,000	.....	.....	3,166	.....	1,049	2,117	.....
		1840	21	1,304,400	.....	.....	2,284	.....	.....	.....	.....
15	Southern states	1900	401	124,596,874	1,760	2,013,362	97,559	17,509,189	40,555	32,545	24,459
		1890	239	53,827,303	752	700,204	36,415	7,116,865	12,517	15,083	8,815
		1880	161	17,375,897	.....	.....	16,741	2,750,986	5,056	7,587	4,098
		1870	151	11,088,315	.....	.....	10,173	1,929,779	3,640	4,190	2,343
		1860	165	9,840,221	.....	.....	10,152	1,481,704	4,113	6,039	.....
		1850	166	7,256,056	.....	.....	10,043	.....	3,886	6,157	.....
		1840	248	4,331,078	.....	.....	6,642	.....	.....	.....	.....
16	Virginia	1900	7	4,403,206	32	50,387	2,931	668,556	1,280	1,000	651
		1890	9	2,966,889	29	32,831	1,990	373,993	563	951	476
		1880	8	1,190,100	.....	.....	1,112	169,789	301	530	281
		1870	11	1,128,000	.....	.....	1,741	229,750	921	507	313
		1860	16	1,367,543	.....	.....	1,441	260,856	694	747	.....
		1850	27	1,908,900	.....	.....	2,963	.....	1,275	1,688	.....
		1840	22	1,299,020	.....	.....	1,816	.....	.....	.....	.....
17	North Carolina	1900	177	33,011,516	659	586,730	30,273	5,127,087	12,780	10,364	7,129
		1890	91	10,775,134	227	170,264	8,515	1,475,932	2,788	3,656	2,071
		1880	49	2,855,800	.....	.....	3,343	439,659	875	1,727	741
		1870	33	1,030,900	.....	.....	1,453	182,951	258	916	279
		1860	39	1,272,750	.....	.....	1,755	189,744	440	1,315	.....
		1850	28	1,058,800	.....	.....	1,619	.....	442	1,177	.....
		1840	25	995,300	.....	.....	1,219	.....	.....	.....	.....
18	South Carolina	1900	80	39,258,946	415	537,193	30,201	5,066,840	13,418	8,673	8,110
		1890	34	11,141,833	121	136,080	8,071	1,510,494	2,849	3,070	2,152
		1880	14	2,776,100	.....	.....	2,053	380,844	696	772	585
		1870	12	1,337,000	.....	.....	1,123	257,680	289	508	326
		1860	17	801,825	.....	.....	891	123,300	342	549	.....
		1850	18	857,200	.....	.....	1,019	.....	399	620	.....
		1840	15	617,450	.....	.....	570	.....	.....	.....	.....
19	Georgia	1900	68	24,222,169	338	435,201	18,348	3,574,492	7,336	6,512	4,500
		1890	53	17,664,675	216	199,049	10,314	2,167,036	3,849	4,005	2,460
		1880	40	6,348,657	.....	.....	6,349	1,135,184	1,987	2,951	1,411
		1870	34	3,433,265	.....	.....	2,846	611,868	1,147	1,080	619
		1860	33	2,126,103	.....	.....	2,813	415,332	1,131	1,682	.....
		1850	35	1,736,156	.....	.....	2,272	.....	873	1,399	.....
		1840	19	573,835	.....	.....	779	.....	.....	.....	.....
20	Kentucky	1900	6	1,867,605	24	33,761	1,351	280,407	430	591	330
		1890	5	1,376,132	16	18,466	818	170,573	268	372	178
		1880	3	360,000	.....	.....	352	63,850	128	91	133
		1870	5	405,000	.....	.....	269	57,951	77	71	121
		1860	6	244,000	.....	.....	246	41,280	130	116	.....
		1850	8	239,000	.....	.....	402	.....	181	221	.....
		1840	58	316,113	.....	.....	523	.....	.....	.....	.....
21	Tennessee	1900	17	3,767,726	47	54,364	2,108	422,935	807	918	383
		1890	20	2,928,657	50	50,865	2,124	444,573	670	997	457
		1880	16	1,145,600	.....	.....	1,044	161,071	311	502	231
		1870	28	970,650	.....	.....	890	178,156	252	463	175
		1860	30	965,000	.....	.....	899	139,180	323	576	.....
		1850	33	669,600	.....	.....	891	.....	310	581	.....
		1840	38	463,240	.....	.....	1,542	.....	.....	.....	.....
22	Alabama	1900	31	11,638,757	159	197,700	8,332	1,482,226	3,152	2,743	2,437
		1890	13	2,853,015	49	44,265	2,088	402,908	735	852	501
		1880	16	1,246,500	.....	.....	1,490	239,998	426	631	433
		1870	13	931,000	.....	.....	1,032	216,679	303	445	284
		1860	14	1,316,000	.....	.....	1,312	198,408	543	769	.....
		1850	12	651,900	.....	.....	715	.....	346	369	.....
		1840	14	35,575	.....	.....	82	.....	.....	.....	.....
23	Mississippi	1900	6	2,209,749	46	60,212	1,675	339,546	526	683	466
		1890	9	2,053,743	30	26,984	1,154	263,997	450	398	306
		1880	8	1,122,140	.....	.....	722	133,214	203	313	206
		1870	5	751,500	.....	.....	265	61,833	78	88	99
		1860	4	230,000	.....	.....	215	36,264	106	109	.....
		1850	2	38,000	.....	.....	36	.....	19	17	.....
		1840	53	6,420	.....	.....	81	.....	.....	.....	.....
24	Arkansas	1900[4]	.....	.....	.....	.....	.....	.....	.....	.....	.....
		1890[4]	.....	.....	.....	.....	.....	.....	.....	.....	.....
		1880	2	75,000	.....	.....	64	7,339	20	17	27
		1870	2	13,000	.....	.....	17	4,100	8	3	6
		1860	2	37,000	.....	.....	25	4,428	14	11	.....
		1850	3	16,500	.....	.....	31	.....	13	18	.....
		1840	2	2,125	.....	.....	7	.....	.....	.....	.....

[1] Not reported separately.

[2] Not reported.

BY STATES AND TERRITORIES GEOGRAPHICALLY ARRANGED: 1840 TO 1900—Continued.

MACHINERY.		Miscellaneous expenses.	MATERIALS USED.				All other materials.	Value of products.	
			Total cost.	Cotton.					
Spindles.	Looms.			Bales.	Pounds.	Cost.			
34,552	738	$6,448	$187,919	2,675	1,371,563	$106,358	81,561	$372,089	
53,916	996	85,149	587,646	8,876	4,465,825	475,490	112,156	1,095,001	
46,188	822	.....	527,205	7,512	3,236,184	427,855	99,350	871,007	
29,534	771	.....	704,733	.....	2,587,615	.....	(1)	1,060,898	13
38,974	986	.....	570,102	.....	3,403,000	.....	(1)	941,703	
.....	.....	.....	312,068	4,730	.....	.....	(1)	538,439	
.....	.....	.....	.....	.....	.....	.....	(2)	332,272	
24,492	.....	.....	.....	.....	.....	.....	.....	.....	
154,064	2,810	397,016	3,039,396	80,954	39,901,955	2,644,129	395,267	5,423,251	
158,930	2,965	354,478	3,378,016	55,026	27,265,667	2,972,432	405,584	5,457,792	
125,706	2,425	.....	2,887,933	51,537	24,166,232	2,780,715	107,218	4,682,114	
89,112	1,947	.....	3,409,426	.....	12,693,647	.....	(1)	4,852,808	14
54,395	1,753	.....	1,745,816	.....	13,174,236	.....	(1)	3,048,277	
.....	.....	.....	1,232,579	24,285	.....	.....	(1)	2,220,504	
.....	.....	.....	.....	.....	.....	.....	(2)	1,150,580	
41,182	.....	.....	.....	.....	.....	.....	.....	.....	
4,299,988	110,015	1,788,860	56,195,213	1,479,006	707,842,111	47,071,449	9,123,764	95,002,059	
1,554,000	36,266	2,257,660	27,764,055	526,856	250,837,646	24,508,776	3,255,279	41,513,711	
542,048	11,898	.....	9,999,145	182,349	84,528,757	8,890,408	1,108,737	16,356,598	
327,871	6,256	.....	7,419,010	.....	34,351,195	.....	(1)	11,372,186	15
298,551	6,789	.....	4,954,126	.....	45,786,510	.....	(1)	8,460,337	
.....	.....	.....	3,332,631	78,110	.....	.....	(1)	6,464,488	
180,927	.....	.....	.....	.....	.....	.....	(2)	2,241,595	
126,827	4,608	135,173	1,412,332	38,118	17,832,465	1,154,215	258,117	2,655,002	
94,294	2,517	102,565	1,199,578	22,731	10,616,206	1,089,773	118,805	1,732,648	
44,340	1,322	.....	640,391	11,461	5,087,519	601,796	38,595	1,040,962	
77,116	1,310	.....	937,820	.....	4,255,383	.....	(1)	1,435,800	16
49,440	2,160	.....	811,187	.....	7,544,297	.....	(1)	1,489,971	
.....	.....	.....	828,375	17,785	.....	.....	(1)	1,486,384	
42,262	.....	.....	.....	.....	.....	.....	(2)	446,063	
1,133,432	25,469	1,030,918	17,386,624	404,535	190,138,759	13,627,720	3,758,904	28,372,798	
337,786	7,254	423,324	6,239,902	114,371	53,546,289	5,396,974	842,928	9,563,443	
92,385	1,790	.....	1,463,645	27,642	11,832,641	1,125,984	337,661	2,554,482	
39,897	618	.....	963,809	.....	4,238,276	.....	(1)	1,345,052	17
41,884	761	.....	622,363	.....	5,540,738	.....	(1)	1,046,047	
.....	.....	.....	531,903	13,617	.....	.....	(1)	831,342	
47,934	.....	.....	.....	.....	.....	.....	(2)	438,900	
1,431,349	42,663	1,507,824	17,263,882	485,234	230,053,807	14,929,546	2,334,336	29,723,919	
332,784	8,546	528,208	6,819,320	133,342	64,000,600	6,242,598	576,722	9,800,798	
82,334	1,676	.....	1,808,300	33,624	15,601,005	1,723,187	85,113	2,895,769	
34,940	745	.....	761,469	.....	4,756,823	.....	(1)	1,529,937	18
30,890	525	.....	431,525	.....	3,978,061	.....	(1)	713,050	
.....	.....	.....	295,971	9,929	.....	.....	(1)	748,838	
16,355	.....	.....	.....	.....	.....	.....	(2)	359,000	
817,345	19,398	1,050,088	11,169,700	304,431	145,833,115	9,702,798	1,466,902	18,544,910	
445,452	10,459	724,822	7,832,230	145,859	69,139,410	6,663,560	1,168,670	12,035,629	
198,656	4,493	.....	4,019,673	71,389	33,757,199	3,591,554	428,119	6,481,894	
85,602	1,887	.....	2,504,758	.....	10,921,176	.....	(1)	3,648,973	19
85,186	2,041	.....	1,466,375	.....	13,907,904	.....	(1)	2,371,207	
.....	.....	.....	900,419	20,230	.....	.....	(1)	2,135,044	
42,589	.....	.....	.....	.....	.....	.....	(2)	304,342	
66,633	991	105,796	972,244	23,982	11,971,815	770,363	201,881	1,663,712	
42,942	677	60,200	643,949	11,980	5,751,305	554,206	89,743	1,000,668	
9,022	73	.....	253,818	4,050	1,882,234	188,856	64,962	418,286	
7,734	72	.....	375,048	.....	1,584,625	.....	(1)	498,960	20
8,192	76	.....	214,755	.....	1,826,000	.....	(1)	315,270	
.....	.....	.....	180,907	3,760	.....	.....	(1)	273,439	
12,358	.....	.....	.....	.....	.....	.....	(2)	329,380	
123,896	2,995	142,878	1,143,234	30,273	15,040,336	984,309	156,925	1,994,935	
97,524	2,043	173,853	1,765,162	33,114	15,779,360	1,554,851	210,311	2,507,719	
35,736	818	.....	553,761	10,436	4,944,279	508,305	45,456	874,717	
27,923	313	.....	595,789	.....	2,872,582	.....	(1)	941,542	21
29,850	243	.....	384,548	.....	4,072,710	.....	(1)	698,122	
.....	.....	.....	297,500	6,411	.....	.....	(1)	510,624	
16,813	.....	.....	.....	.....	.....	.....	(2)	325,719	
411,328	8,549	511,296	4,825,981	134,371	67,987,299	4,206,721	619,260	8,153,136	
79,234	1,692	154,893	1,459,048	29,962	14,726,454	1,372,058	86,990	2,190,771	
49,432	863	.....	783,711	14,702	7,271,791	729,202	54,509	1,228,019	
28,046	632	.....	764,965	.....	3,249,523	.....	(1)	1,088,767	22
35,740	623	.....	617,633	.....	5,246,800	.....	(1)	1,040,147	
.....	.....	.....	237,081	5,208	.....	.....	(1)	382,260	
1,502	.....	.....	.....	.....	.....	.....	(2)	17,547	
75,122	2,464	117,117	767,327	20,962	10,363,458	623,576	143,751	1,472,835	
57,004	1,352	57,622	871,970	17,366	8,449,834	793,600	78,370	1,333,398	
18,568	644	.....	337,149	6,411	2,881,853	301,226	35,923	679,093	
3,526	152	.....	123,568	.....	580,764	.....	(1)	234,445	23
6,344	90	.....	79,800	.....	698,800	.....	(1)	176,328	
.....	.....	.....	21,500	430	.....	.....	(1)	80,500	
318	.....	.....	.....	.....	.....	.....	(2)	1,744	
.....	.....	.....	.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	.....	8,305	50,000	
2,015	28	.....	33,305	680	340,000	25,000	(1)	22,562	24
1,125	.....	.....	13,780	.....	66,400	.....	(1)	23,000	
.....	.....	.....	11,600	.....	187,500	.....	(1)	16,637	
.....	.....	.....	8,975	170	.....	.....	(2)	.....	
90	.....	.....	.....	.....	.....	.....	.....	.....	

[3] Maryland and the District of Columbia are combined in this table as Middle states for purposes of comparison.
[4] Included in "All other Southern states."

TABLE 23.—COMPARATIVE SUMMARY, COTTON GOODS AND COTTON SMALL WARES,

		Year.	Number of establishments.	Capital.	SALARIED OFFICIALS, CLERKS, ETC.		AVERAGE NUMBER OF WAGE-EARNERS AND TOTAL WAGES.				
							Total.		Men, 16 years and over.	Women, 16 years and over.	Children under 16 years.
					Number.	Salaries.	Average number.	Wages.			
		1900[1]									
		1890[1]									
	Southern states—Continued.	1880	2	$195,000			108	$12,572	43	41	24
25	Louisiana	1870	4	592,000			246	60,600	123	57	66
		1860	2	1,000,000			360	49,440	220	140	
		1850[4]									
		1840	2	22,000			23				
		1900	4	2,227,184	21	$31,388	984	253,630	497	302	185
		1890[1]									
		1880	2	50,000			71	2,466	45	10	16
26	Texas	1870	4	496,000			291	68,211	184	52	55
		1860	1	450,000			130	15,600	130		
		1850[4]									
		1840[4]									
		1900[5]	5	1,990,016	19	26,426	1,356	293,470	329	759	268
		1890	5	2,067,225	15	21,400	1,341	307,359	345	782	214
		1880	1	11,000			33	5,000	21	2	10
27	All other Southern states	1870[4]									
		1860	1	30,000			65	7,872	40	25	
		1850	(5)	80,000			95		28	67	
		1840[4]									
		1900	18	4,567,943	66	107,451	3,308	863,426	1,140	1,871	297
		1890	25	5,364,042	94	109,598	3,261	890,141	991	1,839	431
		1880	17	3,135,000			2,366	505,403	646	1,215	505
28	Western states	1870	23	1,790,900			1,447	379,095	481	516	450
		1860	16	695,700			1,395	272,712	648	747	
		1850	12	442,000			651		245	406	
		1840	20	256,000			456				
		1900	4	172,661	13	11,666	109	29,076	27	82	
		1890	7	1,213,217	30	32,144	554	161,613	235	312	7
		1880	4	670,000			484	104,500	126	321	37
29	Ohio	1870	7	555,700			462	113,520	216	147	99
		1860	8	265,000			840	151,164	372	468	
		1850	8	297,000			401		132	269	
		1840	8	113,500			246				
		1900	5	1,679,741	19	34,964	1,428	325,749	377	1,001	50
		1890	6	1,744,720	16	22,334	1,309	310,342	325	749	235
		1880	4	1,090,000			720	162,829	205	391	124
30	Indiana	1870	4	551,500			504	113,200	119	*179	206
		1860	2	251,000			367	84,888	177	190	
		1850	2	43,000			95		38	57	
		1840	12	142,500			210				
		1900	3	467,808	5	5,220	347	80,567	131	191	25
		1890	4	892,509	11	11,300	490	131,170	198	239	53
		1880	1	200,000			271	67,209	66	149	56
31	Wisconsin	1870[4]									
		1860[4]									
		1850[4]									
		1840									
		1900[3]									
		1890	4	766,405	24	26,400	430	123,986	112	280	38
		1880	2	240,000			237	47,885	66	89	82
32	Illinois	1870	5	151,000			98	25,500	26	31	41
		1860	3	4,700			11	2,640	10	1	
		1850[4]									
		1840[4]									
		1900[3]									
		1890[3]									
		1880	3	890,000			515	97,680	127	207	181
33	Missouri	1870	3	489,200			361	120,300	107	154	100
		1860	2	169,000			170	30,600	85	85	
		1850	2	102,000			155		75	80	
		1840[4]									
		1900[4]									
		1890[4]									
		1880	1	20,000			29	2,100	16	8	5
34	Utah	1870	3	42,000			16	6,300	10	2	4
		1860	1	6,000			7	3,420	4	3	
		1850[4]									
		1840[4]									
		1900	6	2,247,733	29	55,601	1,424	428,034	605	597	222
		1890	4	747,191	13	17,420	478	163,030	121	259	98
		1880	2	25,000			110	23,200	40	50	20
35	All other Western states[9]	1870	1	1,500			6	275	3	3	
		1860[4]									

[1] Included in "all other Southern states."
[2] Not reported separately.
[3] Not reported.
[4] No establishments reported.
[5] Includes states grouped in order that the operations of individual establishments may not be disclosed. These establishments are distributed as follows: 1900, Arkansas, 2; Louisiana, 2; West Virginia, 1. 1890, Arkansas, 2; Louisiana, 2; Texas, 1. 1880, Florida, 1. 1860, Florida, 1. 1850, Florida, number of establishments not reported.

BY STATES AND TERRITORIES GEOGRAPHICALLY ARRANGED: 1840 TO 1900—Continued.

MACHINERY.		Miscellaneous expenses.	MATERIAL USED.				All other materials.	Value of products.	
			Total cost.	Cotton.					
Spindles.	Looms.			Bales.	Pounds.	Cost.			
6,096	120		$72,470	1,358	644,000	$68,018	4,452	86,776	
13,084	292		161,485		748,525		(2)	251,550	25
6,725	150		226,600		1,995,700		(2)	466,500	
							(2)		
706							(3)	18,900	
48,756	1,018	$113,156	641,341	18,045	9,304,434	566,517	74,824	1,199,990	
2,648	71		14,827	246	119,986	11,280	3,547	21,600	
8,878	235		216,519		1,077,118		(2)	374,598	26
2,700	100		64,140		588,000		(2)	80,695	
							(2)		
							(3)		
65,300	1,860	74,614	612,548	19,055	9,316,623	505,684	106,864	1,220,822	
66,980	1,726	32,173	932,896	18,131	8,828,188	850,156	82,740	1,348,637	
816			18,095	350	166,250	16,000	2,095	25,000	
							(2)		27
1,600	20		23,600		200,000		(2)	40,000	
			30,000	600			(2)	49,920	
							(3)		
211,926	5,659	204,342	1,928,550	45,736	23,539,197	1,463,005	465,545	3,545,542	
164,226	3,410	283,803	3,003,385	47,632	24,232,128	2,227,922	775,463	4,691,084	
88,136	1,842		[6]1,725,418	29,768	15,119,916	[6]1,627,357	[6]126,538	[6]2,981,196	
60,191	1,098		1,707,850		7,393,818		(2)	2,560,735	28
35,734	995		731,955		6,103,444		(2)	1,326,837	
			351,726	7,105			(2)	581,800	
18,739							(3)	274,778	
	164	18,214	144,043				144,043	236,885	
16,560	40	106,399	903,446	11,023	5,840,078	383,556	519,890	1,468,204	
13,328	42		286,692	5,323	2,506,182	258,198	28,494	637,000	
23,240	208		493,704		2,226,400		(2)	681,835	29
19,664	540		374,100		3,192,500		(2)	723,500	
			237,060	4,270			(2)	394,700	
13,754							(3)	139,378	
102,488	2,712	72,888	702,497	19,884	10,283,614	608,822	93,675	1,341,597	
74,604	1,649	73,941	919,566	16,306	8,240,434	798,178	121,388	1,350,425	
33,396	776		[7]651,434	11,558	6,364,887	[7]679,911	(1)	1,155,029	
17,360	448		542,875		2,070,318		(2)	778,047	30
11,000	375		229,925		1,813,944		(2)	344,350	
			28,220	675			(2)	44,200	
4,985							(3)	135,400	
21,496	591	13,992	172,267	4,565	2,316,727	145,773	26,494	316,061	
32,592	870	52,477	382,833	6,924	3,470,388	359,117	23,716	620,196	
10,000	400		194,556	3,173	1,541,797	180,072	14,484	328,389	
							(2)		31
							(2)		
							(2)		
							(3)		
21,800	465	18,986	337,773	6,405	3,267,188	312,621	25,152	563,988	
4,860	24		142,183	2,261	1,099,130	110,969	31,214	219,861	
1,856	16		177,525		857,000		(2)	279,000	32
			11,930		95,000		(2)	18,987	
							(2)		
							(3)		
19,312	431		376,081	6,399	3,082,132	336,984	39,097	522,980	
16,715	415		481,745		2,196,600		(2)	798,050	33
5,000	80		110,000		990,000		(2)	230,000	
			86,446	2,160			(2)	142,900	
							(3)		
432	14		3,472	54	25,788	3,223	249	7,937	
1,020	11		7,051		23,500		(2)	16,803	34
70			6,000		12,000		(2)	10,000	
							(2)		
							(3)		
87,942	2,192	99,248	909,743	21,287	10,938,856	708,410	201,333	1,650,999	
18,670	386	32,000	459,767	6,974	3,414,040	374,450	85,317	688,271	
6,808	155		71,000	1,000	500,000	58,000	13,000	110,000	35
			4,950		20,000			7,000	

[6] The error referred to in note 7 is also contained in this total.
[7] Owing to error in the published statistics for 1880 the cost of cotton in Indiana is shown to be in excess of the total cost of all materials used.
[8] Included in "all other Western states."
[9] Includes establishments distributed as follows: 1900, California, 1; Colorado, 1; Illinois, 1; Missouri, 2; Nebraska, 1. 1890, California, 1; Iowa, 2; Missouri, 1 1880, Michigan, 1; Minnesota, 1. 1870, Iowa, 1.

TABLE 24.—COTTON GOODS, DETAILED SUMMARY, BY STATES ARRANGED GEOGRAPHICALLY: 1900.

STATES.	Number of establishments.	CHARACTER OF ORGANIZATION.			CAPITAL.				
		Individual.	Firm and limited partnership.	Incorporated company.	Total.	Land.	Buildings.	Machinery, tools, and implements.	Cash on hand, bills receivable, unsettled ledger accounts, raw materials, stock in process of manufacture, finished products on hand, and other sundries.
United States	973	142	123	708	$460,842,772	$22,546,549	$91,621,757	$181,009,280	$165,665,186
New England states	332	36	22	274	272,668,914	11,820,308	55,523,593	99,093,175	106,231,838
Maine	15			15	21,087,190	988,306	3,498,246	7,988,603	8,612,035
New Hampshire	23	2	1	20	29,261,835	1,302,874	4,375,217	10,007,368	13,576,376
Vermont	5			5	1,932,983	188,754	451,745	796,312	496,172
Massachusetts	163	14	11	138	155,761,193	8,716,746	30,066,848	57,928,100	59,049,499
Rhode Island	71	8	5	58	37,274,125	2,791,426	10,352,863	12,065,017	12,064,819
Connecticut	55	12	5	38	27,351,588	832,202	6,778,674	10,307,775	9,432,937
Middle states	225	75	80	70	59,078,820	3,277,033	11,327,917	20,779,919	23,693,951
New York	34	12	6	16	14,509,211	740,927	3,621,305	5,341,881	4,805,098
New Jersey	20	4	4	12	13,989,374	800,018	2,888,476	5,128,363	5,172,517
Pennsylvania	154	56	68	30	22,386,121	1,193,575	3,364,273	8,152,753	9,675,520
Delaware	3			3	484,858	27,000	98,260	205,789	153,809
Maryland	14	3	2	9	7,709,256	515,513	1,355,603	1,951,133	3,887,007
Southern states	400	30	18	352	124,532,864	4,250,540	23,741,094	59,179,798	37,361,432
Virginia	7			7	4,403,206	108,559	784,481	2,236,136	1,274,030
North Carolina	177	16	12	149	33,011,516	1,395,341	5,848,808	16,290,457	9,476,910
South Carolina	80	4	1	75	39,258,946	805,742	7,705,755	18,748,418	11,999,031
Georgia	67	7	1	59	24,158,159	1,166,237	4,701,906	10,828,803	7,461,213
Alabama	31			31	11,638,757	327,152	2,364,991	5,198,990	3,747,624
Mississippi	6		1	5	2,209,749	46,014	438,105	1,050,665	674,965
Texas	4			4	2,227,184	64,869	373,234	922,991	866,090
Kentucky	6			6	1,867,605	77,016	273,428	869,363	647,798
Tennessee	17	2	2	13	3,767,726	152,243	891,197	1,832,928	891,358
All other Southern states[1]	5	1	1	3	1,990,016	107,367	359,189	1,201,047	322,413
Western states	16	1	3	12	4,562,174	198,668	1,029,153	1,956,388	1,377,965
Ohio	3	1	1	1	168,492	700	21,600	56,813	89,379
Indiana	4		1	3	1,078,141	60,900	373,097	715,980	528,164
Wisconsin	3		1	2	467,808	34,250	75,750	185,900	171,908
All other Western states[1]	6			6	2,247,733	102,818	558,706	997,695	588,514

STATES.	Proprietors and firm members.	SALARIED OFFICIALS, CLERKS, ETC.								
		Total number.	Total salaries.	Officers of corporations.		General superintendents, managers, clerks, etc.				
				Number.	Salaries.	Total number.	Total salaries.	Men.		Women.
								Number.	Salaries.	Number.	Salaries.
United States	389	4,713	$7,123,574	1,179	$3,034,116	3,534	$4,089,458	3,220	$3,959,165	314	$130,293
New England states	72	1,988	3,705,238	412	1,561,045	1,576	2,144,193	1,402	2,068,702	174	75,491
Maine	1	100	231,815	33	124,500	67	107,315	63	105,515	4	1,800
New Hampshire		175	370,777	35	126,650	140	244,127	129	238,457	11	5,670
Vermont		20	26,579	8	11,500	12	15,079	12	15,079		
Massachusetts	37	1,080	2,013,902	220	951,380	860	1,062,522	733	1,009,543	127	52,979
Rhode Island	15	332	666,541	68	218,384	264	448,157	253	442,521	11	5,636
Connecticut	19	281	395,624	48	128,631	233	266,993	212	257,587	21	9,406
Middle states	249	907	1,303,339	127	410,147	780	893,192	706	862,481	74	30,711
New York	25	156	226,701	31	79,380	125	147,321	114	143,025	11	4,296
New Jersey	10	141	250,548	17	73,425	124	177,123	119	174,966	5	2,157
Pennsylvania	207	515	677,303	64	192,361	451	484,942	394	460,984	57	23,958
Delaware		11	15,449	1	6,000	10	9,449	10	9,449		
Maryland	7	84	133,338	14	58,981	70	74,357	69	74,057	1	300
Southern states	62	1,754	2,008,662	618	1,015,324	1,136	993,338	1,073	970,471	63	22,867
Virginia		32	50,387	15	29,065	17	21,322	17	21,322		
North Carolina	41	659	586,730	248	288,574	411	298,156	395	293,155	16	5,001
South Carolina	5	415	537,193	133	286,320	282	250,873	262	243,733	20	7,140
Georgia	10	332	430,501	111	206,274	221	224,227	204	217,386	17	6,841
Alabama		159	197,700	56	102,971	103	94,729	98	93,049	5	1,680
Mississippi	2	46	60,212	10	18,600	36	41,612	35	40,892	1	720
Texas		21	31,388	7	17,503	14	13,885	13	13,285	1	600
Kentucky		24	33,761	9	17,800	15	15,961	15	15,961		
Tennessee	3	47	54,364	25	37,517	22	16,847	21	16,607	1	240
All other Southern states[1]	1	19	26,426	4	10,700	15	15,726	13	15,081	2	645
Western states	6	64	106,335	22	47,600	42	58,735	39	57,511	3	1,224
Ohio	1	12	11,250	3	4,200	9	7,050	8	6,790	1	260
Indiana	3	18	34,264	8	19,900	10	14,364	9	14,000	1	364
Wisconsin	2	5	5,220	2	2,500	3	2,720	3	2,720		
All other Western states[1]		29	55,601	9	21,000	20	34,601	19	34,001	1	600

[1] Includes establishments distributed as follows: Southern states—Arkansas, 2; Louisiana, 2; West Virginia, 1. Western states—California, 1; Colorado, 1; Illinois, 1; Missouri, 2; Nebraska, 1.

TABLE 24.—COTTON GOODS, DETAILED SUMMARY, BY STATES ARRANGED GEOGRAPHICALLY: 1900—Continued.

STATES.	WAGE-EARNERS, INCLUDING PIECEWORKERS, AND TOTAL WAGES.									
	Greatest number employed at any one time during the year.	Least number employed at any one time during the year	Average number.	Total wages.	Men, 16 years and over.		Women, 16 years and over.		Children under 16 years.	
					Average number.	Wages.	Average number.	Wages.	Average number.	Wages.
United States	323,913	275,369	297,929	$85,126,310	134,354	$46,923,365	123,709	$32,917,933	39,866	$5,285,012
New England states	173,562	149,814	162,294	55,367,541	78,217	31,083,393	73,258	22,236,019	10,819	2,048,129
Maine	14,262	13,378	13,723	4,330,297	6,197	2,342,275	6,760	1,864,335	766	123,687
New Hampshire	21,325	19,542	20,454	6,759,422	9,229	3,599,509	10,362	2,996,626	863	163,287
Vermont	1,226	901	1,015	259,758	438	131,465	495	114,375	82	13,918
Massachusetts	99,001	82,991	92,085	32,327,443	45,105	18,298,457	41,057	12,855,112	5,923	1,173,874
Rhode Island	23,272	20,484	21,823	7,297,119	10,330	4,062,540	9,240	2,813,883	2,253	420,696
Connecticut	14,476	12,518	13,194	4,393,502	6,918	2,649,147	5,344	1,591,688	932	152,667
Middle states	38,309	31,912	34,843	11,396,710	14,473	6,132,776	16,056	4,589,949	4,314	673,985
New York	9,341	8,202	8,659	2,582,394	4,094	1,412,902	3,761	1,024,845	804	144,647
New Jersey	5,980	5,166	5,518	1,887,119	2,088	1,002,178	2,789	792,990	641	91,951
Pennsylvania	17,328	13,833	15,567	5,602,339	6,737	3,149,455	7,119	2,194,113	1,711	258,471
Delaware	629	204	372	138,844	108	58,885	222	67,700	42	12,259
Maryland	5,031	4,507	4,727	1,186,014	1,446	509,356	2,165	510,001	1,116	166,657
Southern states	108,506	90,528	97,494	17,501,648	40,528	9,320,597	32,528	5,669,916	24,438	2,511,135
Virginia	3,078	2,746	2,931	668,556	1,280	392,540	1,000	202,906	651	73,110
North Carolina	33,621	28,256	30,273	5,127,087	12,780	2,765,457	10,364	1,629,036	7,129	732,594
South Carolina	33,298	27,678	30,201	5,066,840	13,418	2,785,285	8,673	1,477,621	8,110	803,934
Georgia	20,494	17,023	18,283	3,566,951	7,309	1,815,126	6,495	1,270,434	4,479	481,391
Alabama	9,553	7,519	8,332	1,482,226	3,152	789,225	2,743	463,244	2,437	229,757
Mississippi	1,877	1,432	1,675	339,546	526	153,859	683	128,209	466	57,478
Texas	1,290	1,094	984	253,630	497	164,325	302	64,997	185	24,308
Kentucky	1,431	1,250	1,351	280,407	430	126,130	591	116,081	330	38,196
Tennessee	2,485	2,190	2,108	422,935	807	214,140	918	168,135	383	40,660
All other Southern states[1]	1,379	1,340	1,356	293,470	329	114,510	759	149,253	268	29,707
Western states	3,536	3,115	3,298	860,111	1,136	386,599	1,867	422,049	295	51,763
Ohio	117	80	106	27,861	24	11,482	82	16,379	.....	.....
Indiana	1,537	1,358	1,421	323,949	376	123,259	997	195,150	48	5,540
Wisconsin	387	315	347	80,567	131	39,170	191	38,750	25	2,647
All other Western states[1]	1,495	1,362	1,424	428,034	605	212,688	597	171,770	222	43,576

STATES.	WAGE-EARNERS, INCLUDING PIECEWORKERS, AND TOTAL WAGES.											
	Men, 16 years and over.											
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
United States	134,941	135,497	136,254	134,684	135,549	133,099	132,151	129,830	133,139	134,265	135,622	137,217
New England states	77,972	78,428	78,951	78,674	78,236	77,906	77,583	75,649	78,042	78,288	78,894	79,977
Maine	6,212	6,243	6,253	6,260	6,186	6,177	6,158	6,131	6,105	6,165	6,197	6,274
New Hampshire	9,156	9,219	9,259	9,259	9,096	9,141	9,142	9,125	9,235	9,280	9,107	9,431
Vermont	421	457	435	437	418	429	448	425	427	431	458	468
Massachusetts	44,990	45,219	45,596	45,523	45,428	45,138	44,758	42,955	45,110	45,127	45,336	46,082
Rhode Island	10,287	10,341	10,481	10,460	10,389	10,279	10,280	10,178	10,214	10,233	10,302	10,510
Connecticut	6,906	6,949	6,927	6,735	6,719	6,742	6,797	6,835	6,951	7,052	7,194	7,212
Middle states	14,607	14,608	14,719	13,760	14,682	14,384	14,293	14,265	14,472	14,584	14,694	14,620
New York	4,099	4,182	4,193	4,155	4,115	4,054	3,934	3,942	3,966	4,134	4,167	4,192
New Jersey	2,051	1,959	2,103	2,089	2,116	2,051	2,095	2,082	2,071	2,140	2,159	2,142
Pennsylvania	6,872	6,917	6,813	5,849	6,814	6,785	6,745	6,722	6,919	6,814	6,847	6,749
Delaware	129	112	158	189	191	37	61	65	80	83	94	102
Maryland	1,456	1,438	1,452	1,478	1,446	1,457	1,458	1,454	1,436	1,413	1,427	1,435
Southern states	41,248	41,327	41,432	41,115	41,462	39,689	39,161	38,797	39,488	40,254	40,889	41,468
Virginia	1,249	1,251	1,254	1,262	1,268	1,283	1,287	1,295	1,304	1,298	1,308	1,305
North Carolina	12,921	12,813	12,813	12,998	13,186	12,655	12,435	12,231	12,632	12,752	12,874	13,057
South Carolina	13,961	13,810	13,946	13,240	13,372	13,044	13,025	12,905	13,056	13,283	13,569	13,802
Georgia	7,240	7,596	7,516	7,753	7,652	7,225	6,993	6,863	7,007	7,233	7,268	7,359
Alabama	3,320	3,308	3,308	3,259	3,268	2,893	2,873	2,949	2,940	3,081	3,290	3,334
Mississippi	461	490	492	507	498	484	539	550	573	570	574	576
Texas	489	484	488	488	574	583	474	478	471	474	474	483
Kentucky	433	411	442	424	415	430	437	433	432	450	425	427
Tennessee	844	838	842	853	898	763	766	767	760	781	776	793
All other Southern states[1]	330	326	331	331	331	329	332	326	313	332	331	332
Western states	1,114	1,134	1,152	1,135	1,169	1,120	1,114	1,119	1,137	1,139	1,145	1,152
Ohio	18	23	23	23	23	23	25	25	25	25	25	25
Indiana	373	385	401	389	410	360	359	365	366	366	369	369
Wisconsin	124	127	138	136	137	140	130	127	128	128	129	131
All other Western states[1]	599	599	590	589	599	597	600	602	618	620	622	627

[1] Includes establishments distributed as follows: Southern states—Arkansas, 2; Louisiana, 2; West Virginia, 1. Western states—California, 1; Colorado, 1; Illinois, 1; Missouri, 2; Nebraska, 1.

TABLE 24.—COTTON GOODS, DETAILED SUMMARY, BY STATES ARRANGED GEOGRAPHICALLY: 1900—Continued.

WAGE-EARNERS, INCLUDING PIECEWORKERS, AND TOTAL WAGES—continued.

Women, 16 years and over.

STATES.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
United States	124,486	124,952	125,805	125,285	124,780	122,513	121,292	119,108	121,370	123,746	124,998	126,173
New England states	73,490	73,566	74,295	73,859	73,384	72,920	72,639	70,700	71,964	73,362	74,012	74,909
Maine	6,793	6,801	6,697	6,791	6,741	6,673	6,687	6,710	6,727	6,781	6,832	6,892
New Hampshire	10,268	10,375	10,576	10,418	10,215	10,025	10,349	10,345	10,354	10,448	10,483	10,484
Vermont	467	500	503	529	514	491	504	490	487	476	491	486
Massachusetts	41,344	41,221	41,870	41,692	41,571	41,388	40,706	38,742	39,819	40,894	41,384	42,057
Rhode Island	9,228	9,228	9,291	9,258	9,260	9,163	9,201	9,149	9,191	9,251	9,246	9,417
Connecticut	5,390	5,441	5,358	5,171	5,083	5,177	5,192	5,264	5,386	5,512	5,576	5,573
Middle states	16,227	16,239	16,287	16,258	16,281	15,952	15,655	15,637	15,879	15,999	16,160	16,098
New York	3,782	3,827	3,847	3,856	3,798	3,798	3,598	3,550	3,580	3,772	3,827	3,891
New Jersey	2,805	2,747	2,808	2,757	2,788	2,782	2,775	2,740	2,775	2,807	2,856	2,825
Pennsylvania	7,219	7,215	7,156	7,121	7,175	7,089	6,983	7,014	7,185	7,095	7,147	7,031
Delaware	251	294	329	345	348	98	115	149	171	173	188	206
Maryland	2,170	2,156	2,147	2,179	2,172	2,185	2,184	2,184	2,168	2,152	2,142	2,145
Southern states	32,950	33,287	33,336	33,239	33,175	31,823	31,170	30,933	31,658	32,512	32,959	33,277
Virginia	898	921	942	1,016	1,023	1,028	1,012	1,010	1,028	1,045	1,032	1,042
North Carolina	10,620	10,453	10,638	10,634	10,573	10,289	9,893	9,803	10,081	10,339	10,458	10,589
South Carolina	8,990	8,920	8,983	8,636	8,606	8,426	8,498	8,301	8,500	8,667	8,707	8,838
Georgia	6,405	6,859	6,669	6,806	6,690	6,331	6,078	6,081	6,299	6,525	6,616	6,581
Alabama	2,869	2,907	2,931	2,880	2,902	2,508	2,470	2,496	2,553	2,665	2,833	2,903
Mississippi	591	626	626	636	633	617	713	735	743	753	758	759
Texas	294	290	286	282	394	388	284	280	275	277	285	284
Kentucky	585	602	560	604	593	595	603	591	573	579	605	604
Tennessee	944	952	949	993	995	875	853	874	864	908	905	909
All other Southern states[1]	754	757	752	752	766	766	766	762	742	754	760	768
Western states	1,819	1,860	1,887	1,929	1,940	1,818	1,828	1,838	1,869	1,873	1,867	1,889
Ohio	62	75	76	85	83	80	87	84	88	89	92	89
Indiana	989	1,013	1,035	1,069	1,079	952	955	962	979	980	961	986
Wisconsin	185	184	193	191	186	196	190	193	194	193	194	195
All other Western states[1]	583	588	583	584	592	590	596	599	608	611	620	619

WAGE-EARNERS, INCLUDING PIECEWORKERS, AND TOTAL WAGES—continued.

Children, under 16 years.

STATES.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
United States	40,676	40,363	40,646	40,137	40,450	39,229	38,737	38,463	39,046	39,664	40,330	40,651
New England states	10,972	10,788	10,877	10,744	10,722	10,766	10,768	10,663	10,789	10,780	10,979	10,980
Maine	765	758	768	761	753	782	790	784	756	749	755	768
New Hampshire	866	867	879	864	849	863	856	859	845	856	873	878
Vermont	79	82	92	80	87	87	79	80	85	78	83	78
Massachusetts	6,101	5,902	5,914	5,877	5,881	5,860	5,842	5,713	5,955	5,950	6,028	6,053
Rhode Island	2,247	2,250	2,307	2,237	2,241	2,248	2,263	2,279	2,223	2,197	2,278	2,263
Connecticut	914	929	917	925	911	926	938	948	925	950	962	940
Middle states	4,358	4,283	4,343	4,298	4,340	4,218	4,232	4,270	4,307	4,367	4,415	4,329
New York	798	807	819	793	794	800	785	767	779	807	859	840
New Jersey	629	583	625	622	642	643	664	670	662	645	661	651
Pennsylvania	1,751	1,724	1,741	1,704	1,703	1,637	1,641	1,658	1,723	1,782	1,764	1,701
Delaware	57	61	60	75	80	20	20	20	20	27	26	32
Maryland	1,123	1,108	1,098	1,104	1,121	1,118	1,122	1,155	1,123	1,106	1,105	1,105
Southern states	25,063	25,008	25,144	24,810	25,104	23,958	23,443	23,236	23,637	24,205	24,624	25,032
Virginia	626	628	644	654	665	672	644	651	648	660	659	659
North Carolina	7,378	7,269	7,391	7,410	7,463	6,991	6,736	6,644	6,909	7,040	7,160	7,153
South Carolina	8,352	8,224	8,297	7,942	8,043	7,870	7,901	7,878	7,984	8,140	8,273	8,420
Georgia	4,599	4,723	4,683	4,704	4,730	4,446	4,243	4,124	4,181	4,360	4,459	4,501
Alabama	2,504	2,581	2,508	2,461	2,483	2,337	2,325	2,319	2,306	2,371	2,437	2,662
Mississippi	412	443	438	444	442	427	469	489	501	511	507	510
Texas	178	179	185	168	244	267	186	165	161	156	165	169
Kentucky	336	340	317	331	328	318	315	330	341	329	337	332
Tennessee	414	405	404	425	433	354	353	362	351	363	365	369
All other Southern states[1]	264	266	277	271	273	276	271	274	255	275	262	257
Western states	283	284	282	285	284	287	294	294	313	312	312	310
Ohio	48	48	48	48	48	48	48	48	48	48	48	48
Indiana	25	25	25	25	25	25	25	25	25	25	25	25
Wisconsin	210	211	209	212	211	214	221	221	240	239	239	237
All other Western states[1]												

[1] Includes establishments distributed as follows: Southern states—Arkansas, 2; Louisiana, 2; West Virginia, 1. Western states—California, 1; Colorado, 1; Illinois, 1; Missouri, 2; Nebraska, 1.

TABLE 24.—COTTON GOODS, DETAILED SUMMARY, BY STATES ARRANGED GEOGRAPHICALLY: 1900—Continued.

STATES.	SKILLED OPERATIVES BY CLASSES. (AVERAGE NUMBER.)									MACHINERY.		
	Spinners, mule.			Spinners, frame			Weavers.			Producing spindles. (Not including twisting and doubling spindles.)		
	Men, 16 years and over.	Women, 16 years and over.	Children, under 16 years.	Men, 16 years and over.	Women, 16 years and over.	Children, under 16 years.	Men, 16 years and over.	Women, 16 years and over.	Children, under 16 years.	Total number.	Mule. Number.	Frame. Number.
United States	5,328	108	563	7,323	19,171	16,513	41,776	47,941	1,798	19,008,352	5,563,480	13,444,872
New England states	3,973	40	277	3,013	10,640	2,477	23,656	28,804	590	12,850,987	4,477,199	8,373,788
Maine	240	.....	48	198	1,081	193	1,945	2,600	.....	841,621	256,948	584,573
New Hampshire	352	.....	52	283	1,618	354	1,933	4,501	36	1,243,555	287,165	956,390
Vermont	37	.....	.....	11	41	18	86	146	7	100,028	43,316	56,712
Massachusetts	2,245	40	92	1,918	6,259	1,110	14,038	16,557	511	7,784,687	2,556,316	5,228,371
Rhode Island	748	.....	46	326	1,024	566	3,632	3,404	27	1,880,622	940,328	940,294
Connecticut	351	.....	39	277	617	236	2,022	1,596	9	1,000,574	393,126	607,448
Middle states	1,005	10	130	595	1,356	751	4,670	6,085	121	1,647,261	858,675	788,576
New York	576	9	55	295	392	295	877	1,855	7	720,268	367,136	353,132
New Jersey	194	.....	2	18	77	54	373	245	.....	431,730	367,092	64,638
Pennsylvania	235	1	73	191	395	226	3,180	3,001	78	306,637	124,447	182,190
Delaware	.....	.....	.....	37	105	7	33	141	.....	34,552	.....	34,552
Maryland	.....	.....	.....	54	387	169	207	843	36	154,064	.....	154,064
Southern states	305	58	150	3,692	6,780	13,173	13,247	12,202	1,076	4,298,188	180,534	4,117,654
Virginia	8	.....	1	120	176	424	441	573	12	126,827	2,325	124,502
North Carolina	42	.....	.....	1,392	2,624	4,241	3,739	3,265	243	1,133,432	35,352	1,098,080
South Carolina	45	16	6	1,347	1,984	4,913	5,343	3,641	594	1,431,349	10,752	1,420,597
Georgia	128	.....	84	372	873	2,571	2,196	2,577	90	815,545	84,926	730,619
Alabama	49	42	17	207	450	330	936	738	44	411,328	8,000	403,328
Mississippi	.....	.....	.....	10	136	165	105	319	56	75,122	.....	75,122
Texas	.....	.....	.....	86	35	61	114	98	.....	48,756	.....	48,756
Kentucky	15	.....	10	17	108	89	27	214	5	66,633	18,399	48,234
Tennessee	18	.....	32	112	217	223	317	363	19	123,896	20,780	103,116
All other Southern states[1]	.....	.....	.....	29	177	156	29	424	13	65,300	.....	65,300
Western states	45	.....	6	23	395	112	203	850	11	211,926	47,072	164,854
Ohio	.....	.....	.....	.....	.....	.....	3	17	.....	.....	.....	.....
Indiana	17	.....	.....	2	186	10	1	485	4	102,488	16,320	86,168
Wisconsin	4	.....	.....	19	28	5	43	67	.....	21,496	2,816	18,680
All other Western states[1]	24	.....	6	2	181	97	156	281	7	87,942	27,936	60,006

STATES.	MACHINERY—continued. Looms.									MISCELLANEOUS EXPENSES.				
		On plain cloths.												
	Total number.	Less than 28 inches wide.	From 28 to 32 inches wide.	From 32 to 36 inches wide, inclusive.	More than 36 inches wide.	On twills and sateens.	On fancy weaves.	On tapes and other narrow goods.	On bags and other special fabrics.	Total amount.	Rent of works.	Taxes.	Rent of offices, insurance, interest, etc.	Contract work.
		Number.								Amount.				
United States	450,682	35,601	98,995	79,349	126,082	58,839	45,686	1,709	4,421	$21,650,144	$691,075	$3,521,606	$15,844,509	$1,592,954
New England states	298,885	16,765	77,326	37,722	84,916	47,080	31,635	1,586	1,855	13,098,849	497,826	2,585,232	9,247,640	768,151
Maine	23,366	2,005	5,225	2,581	9,175	2,018	1,428	.....	934	1,440,425	8,600	242,230	788,375	406,220
New Hampshire	35,123	214	14,528	6,265	7,799	5,627	335	.....	355	1,502,420	1,500	314,357	1,173,856	12,707
Vermont	2,099	1,653	430	.....	16	.....	.....	.....	.....	43,282	.....	5,650	37,632	.....
Massachusetts	179,280	11,079	51,177	25,336	39,415	28,213	23,748	.....	312	7,243,357	13,714	1,654,300	5,391,813	183,530
Rhode Island	39,172	1,719	2,222	2,567	19,581	7,852	3,945	1,586	.....	1,580,859	464,454	240,778	763,537	112,090
Connecticut	19,545	95	3,744	973	8,930	3,370	2,179	.....	254	1,288,506	14,558	127,917	1,092,427	53,604
Middle states	36,134	6,442	3,023	3,501	8,035	3,403	10,031	123	1,576	3,567,960	180,147	279,546	2,385,463	722,804
New York	14,545	5,476	939	1,695	5,040	1,050	156	6	183	909,351	24,943	135,327	579,833	169,248
New Jersey	2,226	278	104	13	324	660	655	.....	192	403,119	5,585	55,078	338,732	3,724
Pennsylvania	15,815	406	1,456	1,025	1,541	1,656	8,476	78	1,177	1,852,026	141,464	52,863	1,107,867	549,832
Delaware	738	.....	.....	.....	238	.....	500	.....	.....	6,448	.....	1,761	4,687	.....
Maryland	2,810	282	524	768	892	37	244	39	24	397,016	8,155	34,517	354,344	.....
Southern states	110,010	12,374	17,930	34,446	32,323	8,356	3,856	.....	725	4,780,635	7,478	630,340	4,040,818	101,999
Virginia	4,608	2,258	157	893	713	389	198	.....	.....	135,173	1,800	24,620	108,753	.....
North Carolina	25,469	7,241	3,305	3,261	7,111	1,499	2,735	.....	314	1,030,918	2,775	135,963	865,958	26,222
South Carolina	42,663	2,171	5,664	15,939	15,040	3,729	100	.....	20	1,507,824	.....	206,355	1,267,597	33,872
Georgia	19,393	316	4,409	6,652	6,261	1,163	463	.....	129	1,041,863	.....	178,564	831,920	31,379
Alabama	8,549	36	1,866	3,441	2,663	183	360	.....	.....	511,296	.....	42,809	468,487	.....
Mississippi	2,464	.....	1,094	734	.....	636	.....	.....	.....	117,117	375	12,367	104,375	.....
Texas	1,018	.....	498	201	.....	244	.....	.....	72	113,156	.....	6,105	107,051	.....
Kentucky	991	.....	.....	916	.....	.....	.....	.....	75	105,796	2,078	9,843	83,349	10,526
Tennessee	2,995	352	608	1,366	260	313	.....	.....	96	142,878	450	12,468	129,960	.....
All other Southern states[1]	1,860	.....	329	1,037	275	200	.....	.....	19	74,614	.....	1,246	73,368	.....
Western states	5,653	20	716	3,680	808	.....	164	.....	265	202,700	5,624	26,488	170,588	.....
Ohio	158	.....	.....	5	2	.....	.....	.....	151	17,812	4,844	1,728	11,240	.....
Indiana	2,712	.....	523	1,989	200	.....	.....	.....	.....	71,648	.....	12,455	59,193	.....
Wisconsin	591	.....	.....	577	.....	.....	.....	.....	14	13,992	.....	3,934	10,058	.....
All other Western states[1]	2,192	20	193	1,109	606	.....	164	.....	100	99,248	780	8,371	90,097	.....

[1] Includes establishments distributed as follows: Southern states—Arkansas, 2; Louisiana, 2; West Virginia, 1. Western states—California, 1; Colorado, 1; Illinois, 1; Missouri, 2; Nebraska, 1.

TABLE 24.—COTTON GOODS, DETAILED SUMMARY, BY STATES ARRANGED GEOGRAPHICALLY: 1900—Continued.

STATES.	MATERIALS USED.									
	Total cost.	Cotton.								
		Sea island.			Other domestic.			Egyptian and other foreign.		
		Bales.	Pounds.	Cost.	Bales.	Pounds.	Cost.	Bales.	Pounds.	Cost.
United States	$173,441,390	47,207	18,442,634	$2,725,023	3,516,080	1,739,711,946	$116,108,879	76,208	55,844,932	$6,071,173
New England states	91,727,594	36,674	14,416,364	2,133,804	1,719,622	874,011,257	58,329,174	66,464	48,977,406	5,321,948
Maine	7,036,287				156,674	79,212,256	5,400,379	754	553,317	62,914
New Hampshire	11,960,102				271,262	136,805,127	9,394,529	367	183,520	18,997
Vermont	526,235				12,493	6,410,674	385,461	555	417,729	46,994
Massachusetts	54,068,038	21,474	8,502,845	1,194,021	1,015,305	517,088,846	33,771,414	48,257	35,292,324	3,944,845
Rhode Island	10,601,006	7,308	2,785,257	472,340	170,514	86,712,235	6,074,331	8,686	6,575,088	592,179
Connecticut	7,535,926	7,892	3,128,262	467,443	93,374	47,782,119	3,303,060	7,845	5,955,428	656,019
Middle states	23,650,270	10,146	3,872,270	568,219	272,947	135,004,971	9,327,774	9,195	6,476,727	700,036
New York	5,257,419	1,649	659,600	106,015	99,064	50,464,770	3,513,661	1,877	1,118,679	123,591
New Jersey	2,926,876	8,497	3,212,670	462,204	15,872	8,183,469	541,858	5,275	3,891,729	407,681
Pennsylvania	12,238,660				74,382	35,083,214	2,521,768	2,043	1,466,319	168,764
Delaware	187,919				2,675	1,371,563	106,358			
Maryland	3,039,396				80,954	39,901,955	2,644,129			
Southern states	56,138,869	387	154,000	23,000	1,477,775	707,159,521	46,988,926	549	390,799	49,189
Virginia	1,412,332				38,118	17,832,465	1,154,215			
North Carolina	17,386,624	387	154,000	23,000	404,148	189,984,759	13,604,720			
South Carolina	17,263,882				485,024	229,899,760	14,909,520	210	154,047	20,026
Georgia	11,113,356				303,836	145,470,324	9,665,464	300	225,000	27,000
Alabama	4,825,981				134,371	67,987,299	4,206,721			
Mississippi	767,327				20,962	10,363,458	623,576			
Texas	641,341				18,045	9,304,434	566,517			
Kentucky	972,244				23,982	11,971,815	770,363			
Tennessee	1,143,234				30,234	15,028,584	982,146	39	11,752	2,163
All other Southern states[1]	612,548				19,055	9,316,623	505,684			
Western states	1,924,657				45,736	23,539,197	1,463,005			
Ohio	142,090									
Indiana	700,557				19,884	10,283,614	608,822			
Wisconsin	172,267				4,565	2,316,727	145,773			
All other Western states[1]	909,743				21,287	10,938,856	708,410			

STATES.	MATERIALS USED—continued.											
	Yarns not made in mill.											
	Cotton.		Woolen.		Worsted.		Silk.		Spun silk.		Other yarns.	
	Pounds.	Cost.	Pounds.	Cost.	Pounds.	Cost.	Pounds.	Cost.	Pounds.	Cost.	Pounds.	Cost.
United States	83,832,216	$15,749,536	435,361	$176,467	687,019	$415,904	298,716	$1,158,321	208,403	$625,658	2,174,275	$520,223
New England states	26,066,155	5,744,449	120,776	29,960	113,850	89,417	216,040	895,989	78,679	306,273	1,247,062	276,745
Maine	1,417,213	225,219									83,200	20,800
New Hampshire	821,587	124,337									10,311	3,752
Vermont	74,349	10,836										
Massachusetts	14,770,086	3,307,608	120,776	29,960	113,850	89,417	142,249	676,210	78,679	306,273	1,005,784	219,551
Rhode Island	4,114,408	924,946									121,727	27,319
Connecticut	4,868,512	1,151,503					73,791	219,779			26,040	5,323
Middle states	42,487,453	8,102,738	313,885	146,257	573,169	326,487	82,676	262,332	129,724	319,385	720,587	209,424
New York	3,283,664	778,826	50	45			5	26	100	300	178,523	44,478
New Jersey	1,790,312	424,569					13,020	66,335	200	600	95,000	46,800
Pennsylvania	36,304,919	6,741,518	313,835	146,212	573,169	326,487	69,651	195,971	129,424	318,485	403,979	110,040
Delaware	182,089	40,369										
Maryland	926,469	117,456									43,085	8,106
Southern states	14,206,608	1,771,469	700	250							188,926	32,754
Virginia	231,372	33,281									148,689	31,225
North Carolina	10,284,488	1,268,058									4,237	1,079
South Carolina	2,866,925	365,106										
Georgia	76,026	10,775									36,000	450
Alabama	650,000	80,000										
Mississippi												
Texas												
Kentucky	11,527	2,439	700	250								
Tennessee	28,670	3,070										
All other Southern states[1]	57,600	8,740										
Western states	1,072,000	130,880									17,700	1,300
Ohio	1,040,000	125,400									17,700	1,300
Indiana												
Wisconsin	26,000	4,400										
All other Western states[1]	6,000	1,080										

[1] Includes establishments distributed as follows: Southern states—Arkansas, 2; Louisiana, 2; West Virginia, 1. Western states—California, 1; Colorado, 1; Illinois, 1; Missouri, 2; Nebraska, 1.

TABLE 24.—COTTON GOODS, DETAILED SUMMARY, BY STATES ARRANGED GEOGRAPHICALLY: 1900—Continued.

STATES.	MATERIALS USED—continued.											
	Waste of other mills.		Oil.		Starch.		Chemicals and dyestuffs.	Fuel.	Rent of power and heat.	Mill supplies.	All other materials.	Freight.
	Pounds.	Cost.	Gallons.	Cost.	Pounds.	Cost.	Cost.	Cost.	Cost.	Cost.	Cost.	Cost.
United States	40,835,400	$1,513,281	2,752,271	$494,179	53,656,304	$1,223,102	$5,671,768	$6,039,485	$382,676	$7,664,490	$4,614,468	$2,286,757
New England states	34,679,845	1,242,765	1,607,707	265,796	30,898,520	753,075	3,854,915	3,440,995	127,163	4,656,208	3,033,275	1,225,643
Maine	3,821,532	190,753	135,781	19,757	3,026,423	62,364	136,645	139,919	37,266	403,017	134,917	202,337
New Hampshire	434,053	24,518	246,466	34,799	1,719,505	144,910	765,948	410,995	15,767	513,970	352,931	154,619
Vermont			7,660	1,123	119,644	1,984	5,071	20,226		32,761	4,100	17,679
Massachusetts	22,392,884	688,860	896,895	147,001	18,584,853	405,536	2,357,105	2,132,986	47,728	2,527,224	1,575,707	646,592
Rhode Island	5,963,702	269,853	222,756	46,191	2,374,573	67,817	331,017	519,653	997	748,558	497,023	28,782
Connecticut	2,067,674	68,781	98,149	16,925	2,073,522	70,434	259,129	217,216	25,405	430,678	468,597	175,631
Middle states	2,388,242	115,332	274,243	54,934	1,588,077	103,709	840,459	635,370	130,235	744,087	870,835	192,657
New York	124,628	7,140	119,486	17,903	1,107,898	27,465	77,884	160,155	62,896	180,678	108,431	47,925
New Jersey			25,283	7,954	1,396,068	26,821	295,015	122,996		104,175	366,103	53,765
Pennsylvania	2,263,614	108,192	89,845	21,296	1,717,154	42,784	453,878	278,389	67,211	316,015	348,718	72,932
Delaware			2,124	335	35,691	1,163	6,000	18,876		13,433		1,385
Maryland			37,505	7,446	330,966	5,476	7,682	54,954	128	129,786	47,583	16,650
Southern states	3,767,313	155,184	831,317	165,581	17,525,258	353,658	953,757	1,879,055	123,098	2,159,706	676,580	806,662
Virginia			16,422	3,042	374,272	7,841	74,066	31,909	2,800	21,183	52,353	417
North Carolina	777,101	35,410	286,491	56,949	4,527,391	91,283	478,258	703,811	14,623	602,014	231,705	275,714
South Carolina	367,110	21,420	213,091	46,688	6,068,638	115,956	50,707	555,252	55,950	725,964	195,602	201,691
Georgia	48,641	1,946	189,036	34,117	3,413,851	65,960	225,971	269,722	48,935	425,302	95,809	241,905
Alabama			81,615	15,786	1,666,938	38,537	21,032	141,947	40	192,418	71,857	57,643
Mississippi			6,150	1,302	278,550	7,275	43,912	45,709		41,873	3,680	
Texas			6,700	1,741	356,000	9,360	180	38,566		22,643	2,334	
Kentucky	2,519,477	94,251	8,617	1,392	263,787	6,769	14,693	20,537		35,887	14,179	11,484
Tennessee			12,443	2,854	374,319	6,900	29,764	39,826		59,658	4,269	12,581
All other Southern states[1]	54,984	2,157	10,752	1,710	231,512	3,777	15,174	31,776	750	32,764	4,792	5,224
Western states			39,004	7,868	644,449	12,660	22,637	84,065	2,180	104,489	33,778	61,795
Ohio			395	307	1,420	38	3,315	1,695	1,100	1,848	4,850	2,237
Indiana			11,340	1,997	250,755	3,676	5,299	24,088		38,776	12,173	5,726
Wisconsin			2,692	454	67,000	1,818		7,504		8,256	2,939	1,123
All other Western states[1]			24,577	5,110	325,274	7,128	14,023	50,778	1,080	55,609	13,816	52,709

STATES.	PRODUCTS.									
	Total value.	Plain cloths for printing or converting.				Brown or bleached sheetings and shirtings.		Twills and sateens.	
		Not finer than No. 28 warp.		Finer than No. 28 warp.					
		Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.
United States	$332,806,156	1,056,278,952	$35,616,575	525,334,875	$22,164,365	1,212,403,048	$56,513,032	235,860,518	$14,301,302
New England states	188,653,165	847,946,980	27,958,118	383,196,030	17,357,642	481,298,187	25,203,827	198,815,721	12,324,450
Maine	14,631,086	3,967,731	199,847	35,052,077	1,659,366	94,416,781	4,825,924	25,188,579	1,626,978
New Hampshire	22,998,249	79,130,448	2,868,638	4,168,353	212,820	64,953,520	3,076,366	23,926,221	1,381,439
Vermont	999,886	21,585,818	698,733						
Massachusetts	110,478,327	687,235,050	22,164,741	240,170,139	9,774,579	176,283,924	9,255,612	86,668,240	5,859,028
Rhode Island	21,056,175	53,893,978	1,951,636	45,378,596	2,403,175	128,276,782	7,160,965	43,308,277	2,504,620
Connecticut	15,489,442	2,133,955	74,523	58,426,865	3,307,702	17,367,180	884,960	19,724,407	952,385
Middle states	45,705,085	83,338,422	2,988,123	2,530,986	111,840	32,973,722	2,252,934	21,494,567	1,244,485
New York	9,947,986	79,523,329	2,800,881	599,781	28,793	24,599,240	1,500,821	8,582,190	468,930
New Jersey	6,540,289	2,497,136	127,854	297,235	14,450			4,540,034	280,411
Pennsylvania	23,421,470					5,102,057	572,454	8,345,486	493,264
Delaware	372,089	1,317,957	59,388	1,633,970	68,597				
Maryland	5,423,251					3,272,425	179,659	26,857	1,880
Southern states	94,914,794	111,052,162	4,290,969	139,201,156	4,676,724	644,577,686	26,043,690	15,550,227	732,367
Virginia	2,655,002	1,368,539	62,270			18,206,054	710,591		
North Carolina	28,372,798	28,674,257	1,075,624	22,570,687	867,944	88,085,411	3,471,329	114,166	5,789
South Carolina	29,723,919	77,818,108	3,034,475	97,343,526	3,171,198	283,105,383	11,533,073	11,379,712	485,481
Georgia	18,457,645	1,831,596	59,527	4,381,999	154,710	131,739,917	5,127,409	420,000	58,800
Alabama	8,153,136	1,329,662	59,073	9,130,864	283,617	72,432,173	2,841,008	1,397,609	55,805
Mississippi	1,472,835			5,774,080	199,255	3,797,382	363,764		
Texas	1,199,990					3,851,609	173,457		
Kentucky	1,663,712					14,659,303	534,237		
Tennessee	1,994,935					11,012,570	501,576	2,238,740	126,489
All other Southern states[1]	1,220,822					17,684,884	767,246		
Western states	3,533,112	13,941,388	379,365	406,703	18,159	53,553,453	2,012,581		
Ohio	231,045	700,000	21,000						
Indiana	1,335,007	8,727,333	196,365			28,076,438	968,388		
Wisconsin	316,061					7,060,514	286,576		
All other Western states[1]	1,650,999	4,514,055	162,000	406,703	18,159	48,416,501	757,617		

[1] Includes establishments distributed as follows: Southern states—Arkansas, 2; Louisiana, 2; West Virginia, 1. Western states—California, 1; Colorado, 1; Illinois, 1; Missouri, 2; Nebraska, 1.

TABLE 24.—COTTON GOODS, DETAILED SUMMARY, BY STATES ARRANGED GEOGRAPHICALLY: 1900—Continued.

STATES.	PRODUCTS—continued.									
	Fancy woven fabrics.		Ginghams.		Duck.				Drills.	
					Sail.		Other.			
	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.
United States	237,841,603	$21,066,310	278,392,708	$16,179,200	11,750,151	$2,216,371	117,483,925	$12,046,637	237,206,549	$11,862,794
New England states	188,079,288	15,536,137	111,511,819	8,007,003	516,874	130,693	31,039,438	3,398,436	48,241,163	3,002,136
Maine	6,922,390	784,204	9,835,356	800,819					21,413,342	1,326,566
New Hampshire	2,019,785	263,296	44,760,333	3,092,400			8,162,191	991,123	6,330,915	356,244
Vermont										
Massachusetts	137,064,111	10,995,987	53,932,358	3,949,351	153,328	38,910	17,750,629	1,638,320	20,475,203	1,316,071
Rhode Island	21,554,243	1,997,352								
Connecticut	20,518,759	1,495,298	2,983,772	164,433	363,546	91,783	5,126,618	768,993	21,703	3,255
Middle states	38,278,513	4,708,095	14,975,361	948,769	8,510,148	1,693,334	19,189,921	2,986,002	186,932	10,281
New York							1,191,300	365,485		
New Jersey	4,455,994	580,577	2,972,723	156,909			1,369,127	277,248		
Pennsylvania	30,981,363	3,906,347	11,792,638	623,860						
Delaware			210,000	168,000						
Maryland	2,841,156	221,171			8,510,148	1,693,334	16,629,494	2,343,269	186,932	10,281
Southern states	11,483,802	822,078	151,905,528	7,223,428	2,723,129	392,344	66,813,750	5,632,615	188,762,583	8,849,672
Virginia	1,419,593	99,629	27,600,235	1,358,195			2,508,716	140,834	4,790,967	242,271
North Carolina	7,770,704	502,123	79,531,131	3,799,187			226,951	21,106	2,821,238	133,110
South Carolina	213,068	14,000	16,752,808	806,551	337,944	50,692	6,898,210	931,297	116,467,224	5,375,017
Georgia	965,038	142,887	25,302,954	1,117,529			31,673,022	2,143,546	36,378,866	1,801,586
Alabama					2,084,385	319,092	13,529,893	1,390,108	14,867,094	607,927
Mississippi							1,567,596	111,858	4,436,078	281,240
Texas			261,468	7,842			7,655,784	722,750	3,273,339	130,933
Kentucky										
Tennessee	1,115,399	63,439	2,456,932	134,124			1,934,666	106,503	2,975,075	163,016
All other Southern states[1]					300,800	22,560	818,912	64,613	2,752,702	114,572
Western states							440,816	29,584	15,871	705
Ohio										
Indiana										
Wisconsin										
All other Western states[1]							440,816	29,584	15,871	705

STATES.	PRODUCTS—continued.									
	Ticks, denims, and stripes.		Cottonades.		Napped fabrics.		Corduroy, cotton velvet, and plush.		Mosquito and other netting.	
	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.
United States	171,800,853	$16,446,633	26,323,947	$2,791,431	268,852,716	$18,231,044	7,961,523	$2,682,017	41,885,023	$875,868
New England states	108,420,059	10,724,795	5,645,907	570,431	218,637,011	15,005,477	3,653,019	1,129,243	22,158,370	455,119
Maine	5,243,675	588,764	3,901,386	377,849	14,190,745	995,867				
New Hampshire	32,201,176	3,226,598			62,253,909	4,394,860				
Vermont										
Massachusetts	63,794,395	5,380,689	1,190,555	145,606	137,199,384	9,328,653	1,687,597	349,343	1,958,116	137,175
Rhode Island							1,965,422	779,900	6,379,307	80,233
Connecticut	7,180,813	1,528,744	553,966	46,976	4,992,973	286,097			13,820,947	237,711
Middle states	12,947,985	1,165,017	8,288,467	1,238,303	5,814,757	882,836	4,308,504	1,552,774	19,726,653	420,749
New York			772,440	52,888	1,069,384	303,905	36,000	14,400	8,038,518	186,986
New Jersey							327,000	118,800	11,688,135	233,763
Pennsylvania	12,262,848	1,110,206	7,004,759	1,134,039	3,718,782	523,772	3,945,504	1,419,574		
Delaware										
Maryland	685,137	54,811	511,268	51,376	1,026,591	55,159				
Southern states	50,432,809	4,556,821	12,389,573	982,697	40,633,116	2,109,572				
Virginia										
North Carolina	23,228,007	2,521,849	6,289,031	409,634	30,175,177	1,555,920				
South Carolina	1,802,138	139,131			840,372	35,000				
Georgia	16,971,764	1,048,395	4,173,815	399,553	6,044,140	265,960				
Alabama		250,000	1,040,307	74,990						
Mississippi			886,420	98,520	3,573,427	252,692				
Texas										
Kentucky										
Tennessee	6,701,703	421,372								
All other Southern states[1]	1,729,197	176,074								
Western states					3,767,832	233,159				
Ohio										
Indiana										
Wisconsin										
All other Western states[1]					3,767,832	233,159				

[1] Includes establishments distributed as follows: Southern states—Arkansas, 2; Louisiana, 2; West Virginia, 1. Western states—California, 1; Colorado, 1; Illinois, 1; Missouri, 2; Nebraska, 1.

TABLE 24.—COTTON GOODS, DETAILED SUMMARY, BY STATES ARRANGED GEOGRAPHICALLY: 1900—Continued.

STATES.	PRODUCTS—continued.									
	Upholstery goods.								Bags and bagging.	
	Tapestries (piece goods and curtains).		Chenille curtains.		Lace and lace curtains.		Other, including covers.			
	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.
United States	10,131,538	$4,123,600	805,414	$257,840	36,880,198	$3,585,138	2,517,459	$703,806	30,039,616	$2,554,192
New England states	447,267	50,494			105,000	70,000	862,448	121,344	19,971,844	1,485,254
Maine							862,448	121,344	6,142,221	477,610
New Hampshire									5,591,681	695,512
Vermont										
Massachusetts	447,267	50,494							8,240,942	312,132
Rhode Island										
Connecticut					105,000	70,000				
Middle states	9,684,271	4,073,106	805,414	257,840	36,775,198	3,515,138	1,655,011	582,462	797,605	124,439
New York					5,850,000	486,523			614,696	100,913
New Jersey	60,000	15,000	60,000	13,000						
Pennsylvania	9,586,606	4,048,784	745,414	244,840	30,925,198	3,028,615	1,655,011	582,462		
Delaware										
Maryland	37,665	9,322							182,909	23,526
Southern states									8,767,167	907,099
Virginia										
North Carolina									1,285,365	301,682
South Carolina									229,109	20,984
Georgia									4,030,293	252,808
Alabama									16,600	500
Mississippi										
Texas									1,234,901	125,320
Kentucky									750,000	96,500
Tennessee									1,220,899	109,305
All other Southern states[1]										
Western states									500,000	37,400
Ohio										
Indiana										
Wisconsin										
All other Western states[1]									500,000	37,400

STATES.	PRODUCTS—continued.									
	Tape and webbing.		Yarns for sale.		Sewing cotton.		Twine.		Batting and wadding.	
	Pieces.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
United States	1,160,873	$328,801	332,186,012	$55,188,663	15,741,062	$11,825,218	11,132,250	$1,475,146	10,567,700	$864,016
New England states	374,607	19,015	118,351,581	24,091,176	10,674,886	8,349,456	1,902,761	252,951	7,537,820	645,535
Maine	1,753	263	2,768,234	406,426					199,040	11,600
New Hampshire			6,018,260	847,278			10,000	1,200		
Vermont			1,532,247	277,542					74,860	3,360
Massachusetts	2,166	363	87,656,177	18,205,806	3,390,883	2,800,495	1,245,540	135,639	380,500	18,524
Rhode Island	360,000	15,000	14,366,101	2,817,858	3,851,844	2,687,827	347,605	79,563	6,009,080	551,919
Connecticut	10,688	3,389	6,010,562	1,536,266	3,432,159	2,861,134	299,616	36,549	874,340	60,132
Middle states	476,014	190,786	41,710,540	6,656,129	4,208,522	3,349,997	1,890,992	277,112	25,625	2,804
New York	2,500	12,500	17,922,997	2,782,165	330,000	150,000			25,625	2,804
New Jersey			3,727,865	870,824	3,560,795	3,130,267				
Pennsylvania	154,000	77,000	18,718,490	2,811,123	258,719	60,880	53,000	6,750		
Delaware			433,632	72,054						
Maryland	319,514	101,286	907,556	119,963	59,008	8,850	1,837,992	270,362		
Southern states	310,000	55,000	170,674,870	24,184,366	557,654	74,765	6,111,115	775,160	1,457,545	82,213
Virginia			51,927	8,190	2,691	416	65,466	6,977	7,134	449
North Carolina	310,000	55,000	86,970,599	12,708,636	187,800	26,292	2,800,530	412,127	29,931	1,652
South Carolina			24,859,616	3,461,090			648,190	69,186	2,400	72
Georgia			35,748,694	4,882,437	338,310	42,863	636,769	74,394	122,437	5,222
Alabama			14,432,028	1,965,139			1,320,624	145,269	11,393	1,823
Mississippi			1,089,493	126,756					59,840	4,000
Texas			288,400	34,608					46,200	462
Kentucky			5,020,741	701,854			461,938	47,719	728,999	43,739
Tennessee			2,000,083	263,662			177,598	19,488	323,925	17,406
All other Southern states[1]			213,289	31,994	28,853	5,194			125,286	7,458
Western states	252	64,000	1,449,021	256,992	300,000	51,000	1,227,382	169,923	1,546,710	133,431
Ohio	252	64,000	440,000	96,000			40,000	10,000		
Indiana			791,521	136,367			39,382	4,923	219,888	15,096
Wisconsin										
All other Western states[1]			217,500	24,625	300,000	51,000	1,148,000	155,000	1,326,822	118,335

[1] Includes establishments distributed as follows: Southern states—Arkansas, 2; Louisiana, 2; West Virginia, 1. Western states—California, 1; Colorado, 1; Illinois, 1; Missouri, 2; Nebraska, 1.

TABLE 24.—COTTON GOODS, DETAILED SUMMARY, BY STATES ARRANGED GEOGRAPHICALLY: 1900—Continued.

STATES.	PRODUCTS—continued.				GOODS EXPORTED.			
	Waste for sale.		Other products of cotton.	All other products.	Exported during the year ending June 30, 1900.	Weight of products.		
						Piece goods.	Yarns spun and not woven in the mill.	Other products.
	Pounds.	*Value.*	*Value.*	*Value.*	*Value.*	*Pounds.*	*Pounds.*	*Pounds.*
United States	270,100,756	$5,552,234	$5,154,170	$9,199,753	$15,357,502	1,124,224,687	343,291,338	71,753,649
New England states	173,315,267	3,871,402	1,838,378	7,056,354	5,666,595	576,231,680	125,268,394	37,107,387
Maine	10,582,399	210,176	177,720	39,763	1,430,000	64,589,813	2,769,987	5,021,810
New Hampshire	18,748,350	395,035	101,662	1,093,778	739,757	103,725,761	6,018,260	5,001,126
Vermont	860,135	16,752		3,499		3,900,736	1,532,247	1,164
Massachusetts	114,256,895	2,609,039	1,182,466	4,829,304	3,489,240	361,768,746	88,970,825	14,557,121
Rhode Island	18,763,717	386,250	118,647	521,230	3,761	3,060,689	17,636,684	9,187,122
Connecticut	10,153,771	254,150	257,883	567,079	3,837	39,185,935	8,340,391	3,339,044
Middle states	18,492,250	388,496	2,345,009	1,736,524	554,225	105,901,658	42,275,212	16,960,035
New York	6,554,045	126,419	350,264	213,309	11,576	25,940,718	17,870,669	3,934,770
New Jersey	2,542,061	78,133	193,279	449,774		6,197,567	3,727,865	3,753,052
Pennsylvania	5,664,228	115,142	1,611,071	1,051,284	29,535	42,841,943	19,335,490	5,589,992
Delaware	209,428	4,050				809,931	433,632	
Maryland	3,522,488	64,752	190,392	23,858	513,114	30,111,499	907,556	3,682,221
Southern states	76,290,167	1,261,701	922,313	339,170	9,088,240	425,535,425	174,298,711	14,041,180
Virginia	1,948,592	25,180			10,812	15,438,367	51,927	68,151
North Carolina	22,039,030	335,571	118,341	49,902	145,573	77,127,435	88,509,326	3,326,766
South Carolina	25,582,434	433,986	74,309	68,374	6,994,651	173,451,460	25,359,616	1,902,797
Georgia	15,310,595	286,614	388,258	205,167	1,230,856	81,294,311	35,749,078	3,793,686
Alabama	6,704,490	101,696	46,355	10,734	641,045	42,523,657	15,993,105	847,979
Mississippi	1,181,753	14,366	20,384		36,000	6,827,632	1,083,993	292,797
Texas	441,439	4,618			29,303	7,922,226	288,400	46,200
Kentucky	1,224,276	24,000	212,100	3,563		4,062,530	5,020,741	1,034,107
Tennessee	1,150,099	22,769	45,586	200		9,180,854	2,000,383	2,271,359
All other Southern states[1]	647,459	12,901	17,000	1,230		7,706,953	242,142	457,338
Western states	2,103,072	30,635	48,470	67,705	48,442	16,555,924	1,449,021	3,645,047
Ohio	3,000	45		40,000		392,000	440,000	255,000
Indiana	773,306	11,163		2,705		7,874,551	791,521	109,270
Wisconsin	250,098	5,685	23,800			1,765,128		26,000
All other Western states[1]	976,668	13,742	24,670	25,000	48,442	6,524,245	217,500	3,244,777

STATES.	PRINTING, DYEING, BLEACHING, AND MERCERIZING CLOTH AND YARN IN COTTON MILLS.									
	Printing.			Dyeing.			Bleaching.		Mercerizing.	
	Printing machines.	Cloth printed.	Additional value given by printing.	Cloth dyed.	Yarn dyed.	Additional value given by dyeing.	Cloth bleached.	Additional value given by bleaching.	Yarn mercerized.	Additional value given by mercerizing.
	Number.	Square yards.		Square yards.	Pounds.		Square yards.		Pounds.	
United States	104	292,741,100	$5,242,695	125,894,626	[2]151,610,157	$6,803,077	[3]197,691,533	$932,452	2,149,722	$328,330
New England states	97	291,593,800	5,191,214	62,686,716	63,496,281	2,490,457	125,235,506	590,649	1,647,470	245,017
Maine					3,340,491	83,299	6,778,075	22,831		
New Hampshire	14	47,231,375	933,716	4,948,962	3,276,720	179,871	13,842,238	101,551		
Vermont					307,252	9,218				
Massachusetts	75	242,057,565	4,175,287	41,040,589	[2]41,590,782	1,551,298	[3]78,693,381	286,788	1,340,254	208,574
Rhode Island	7	2,270,000	81,750	8,818,198	4,525,639	403,777	25,921,612	147,936		
Connecticut	1	34,860	461	7,878,967	10,455,997	262,994		31,543	307,216	36,443
Middle states	6	1,115,808	51,166	55,965,346	18,166,563	1,070,248	46,677,444	194,121	502,252	83,313
New York				5,513,038	106,450	44,888	13,456,476	40,604	26,328	3,242
New Jersey				44,237,979	2,002,531	501,013	26,426,156	63,410	83,309	1,548
Pennsylvania	6	1,115,808	51,166	5,832,509	15,476,499	509,080	6,794,812	90,107	392,615	78,523
Delaware				381,820		7,636				
Maryland					581,083	7,622				
Southern states	1	31,492	315	5,741,892	68,361,413	3,211,107	25,278,583	142,682		
Virginia					5,727,300	85,909				
North Carolina	1	31,492	315	306,490	34,850,776	2,442,144				
South Carolina					2,250,514	43,647	300,000	1,500		
Georgia				5,435,402	14,747,021	432,654	24,265,583	124,893		
Alabama					2,123,809	33,095				
Mississippi					2,394,628	58,329	713,000	16,289		
Texas										
Kentucky					1,556,969	43,139				
Tennessee					2,710,396	52,190				
All other Southern states[1]					2,000,000	20,000				
Western states				1,500,672	1,585,900	31,265	500,000	5,000		
Ohio					320,000	4,300				
Indiana					675,900	6,759				
Wisconsin										
All other Western states[1]				1,500,672	590,000	20,206	500,000	5,000		

[1] Includes establishments distributed as follows: Southern states—Arkansas, 2; Louisiana, 2; West Virginia, 1. Western states—California, 1; Colorado, 1; Illinois, 1; Missouri, 2, Nebraska, 1.

[2] Does not include 45,432 dozen underwear.

[3] Does not include 975,000 yards cotton, 11,989 dozen underwear, and 646,931 quilts.

TABLE 24.—COTTON GOODS, DETAILED SUMMARY, BY STATES ARRANGED GEOGRAPHICALLY: 1900—Continued.

STATES.	COMPARISON OF PRODUCTS.			POWER.									
						Owned.							
						Engines.				Water wheels.		Electric motors.	
						Steam.		Gas or gasoline.					
	Number of establishments reporting for both years.	Value for census year.	Value for preceding business year.	Number of establishments reporting.	Total horsepower.	Number.	Horsepower.	Number.	Horsepower.	Number.	Horsepower.	Number.	Horsepower.
United States	602	$241,797,279	$201,875,820	958	805,126	1,755	527,186	10	275	1,316	250,790	275	15,268
New England states	229	143,763,288	118,174,006	331	498,868	960	324,062	4	221	839	162,618	86	7,126
Maine	12	12,718,118	11,072,519	15	39,963	25	12,350			98	23,233	4	355
New Hampshire	17	19,388,513	15,607,259	23	68,788	59	35,822			98	32,231	6	315
Vermont	4	963,294	787,206	5	3,170	4	1,400			8	1,770		
Massachusetts	111	81,892,089	66,615,282	162	281,032	667	210,880	3	206	333	64,158	63	5,671
Rhode Island	49	17,040,685	14,173,689	71	63,996	122	44,105			152	19,872		
Connecticut	36	11,760,559	9,918,051	55	41,919	83	19,505	1	15	150	21,354	13	785
Middle states	149	37,290,359	33,110,371	221	72,861	275	56,580	3	44	88	13,564	29	296
New York	19	8,485,844	7,548,310	34	23,859	47	14,801	2	40	45	8,524	9	105
New Jersey	12	6,101,315	5,402,096	19	14,215	63	13,044	1	4	11	1,005	17	162
Pennsylvania	109	17,625,292	15,321,204	151	22,463	138	19,615			11	831	2	29
Delaware	1	130,445	110,082	3	1,460	3	1,250			1	210		
Maryland	8	4,947,463	4,728,679	14	10,864	24	7,870			20	2,994		
Southern states	211	57,867,329	48,064,875	390	222,811	498	138,069	2	5	371	72,568	157	7,835
Virginia	3	2,074,780	2,003,160	7	5,048	6	1,690			30	3,070	1	28
North Carolina	85	14,197,270	11,846,103	177	58,442	207	37,258	1	3	141	19,225	28	1,456
South Carolina	42	17,916,449	14,159,857	80	78,801	117	43,386	1	2	90	26,434	114	5,759
Georgia	38	11,902,167	9,886,277	67	39,864	70	22,946			70	16,011	11	557
Alabama	17	5,137,318	4,526,506	21	23,032	36	16,185			25	6,508	3	35
Mississippi	3	955,204	781,062	6	3,365	12	3,330			1	35		
Texas	2	1,038,699	909,731	4	2,950	8	2,950						
Kentucky	6	1,663,712	1,333,096	6	3,605	12	3,455			1	150		
Tennessee	11	1,869,268	1,659,601	17	5,525	23	4,590			11	935		
All other Southern states[1]	4	1,112,462	956,479	5	2,179	7	1,979			2	200		
Western states	13	2,876,303	2,526,568	16	10,586	22	8,475	1	5	18	2,040	3	11
Ohio	3	231,045	197,672	3	350	2	300	1	5	2	40	1	5
Indiana	4	1,335,007	1,243,615	4	4,006	11	4,000					2	6
Wisconsin	1	129,419	130,000	3	1,575	3	575			14	1,000		
All other Western states[1]	5	1,180,832	955,281	6	4,655	6	3,600			2	1,000		

STATES.	POWER—continued.			ESTABLISHMENTS CLASSIFIED BY NUMBER OF PERSONS EMPLOYED, NOT INCLUDING PROPRIETORS AND FIRM MEMBERS.									
	Rented.												
	Electric.	Other kind.	Furnished to other establishments.	Total number of establishments.	No employees.	Under 5.	5 to 20.	21 to 50.	51 to 100.	101 to 250.	251 to 500.	501 to 1,000.	Over 1,000.
	Horsepower.	Horsepower.											
United States	1,922	9,685	4,848	973	1	10	63	95	144	289	190	113	68
New England states	718	4,123	3,375	332		2	14	28	33	80	61	62	52
Maine		4,025	1,000	15					1	3	2	3	6
New Hampshire	420			23					4	3	5	5	6
Vermont				5				1		1	3		
Massachusetts	43	74	2,260	163		2	7	10	13	32	25	42	32
Rhode Island	5	14		71			3	7	10	21	18	7	5
Connecticut	250	10	115	55			4	10	5	20	8	5	3
Middle states	350	2,027	995	225	1	8	43	41	35	61	23	9	4
New York	350	39		34		1	4	7	6	8	3	2	3
New Jersey				20	1		5	3		5	3	2	1
Pennsylvania		1,988	995	154		7	32	31	24	42	13	5	
Delaware				3						2	1		
Maryland				14			2		5	4	3		
Southern states	854	3,480	198	400			5	25	74	144	99	41	12
Virginia		260		7						4	2		1
North Carolina	500			177			1	13	41	72	40	6	1
South Carolina		3,220	3	80				2	6	28	24	13	7
Georgia	350		160	67			1	5	12	21	14	12	2
Alabama	4		10	31			1		5	9	9	6	1
Mississippi				6				1		1	3	1	
Texas				4						1	3		
Kentucky				6					1	3	1	1	
Tennessee			25	17			1	4	5	4	2	1	
All other Southern states[1]				5			1		1	1	1	1	
Western states		55	280	16			1	1	2	4	7	1	
Ohio				3				1					
Indiana			280	4							3	1	
Wisconsin				3					1				
All other Western states[1]		55		6						2	4		

[1] Includes establishments distributed as follows: Southern states—Arkansas, 2; Louisiana, 2; West Virginia, 1. Western states—California, 1; Colorado, 1; Illinois, 1; Missouri, 2; Nebraska, 1.

COTTON SMALL WARES.

At the census of 1900 for the first time a separate classification was made of the establishments producing cotton small wares, including cotton lace, edgings, boot and shoe lacings, corset lacings, lamp and stove wicks, tapes, webbings, and trimmings.

A small number of these establishments may have been reported at the Eleventh Census under the head of "millinery and lace goods," and some others may have been included in the class of "boot and shoe findings." Most of them, however, were included with cotton goods. Inasmuch as a few only of these establishments make use of raw cotton, or operate spindles, and since their products are quite distinct in character from those of ordinary cotton mills, it seems desirable to group them by themselves, in order to avoid misleading deductions from the statistics of the cotton manufacture proper, to recognize the importance of a rapidly expanding industry, and to lay a basis for future comparisons.

Nevertheless, the following tables do not give an exact view of the magnitude of the industries included in this group. The rule necessarily followed in classifying establishments is to combine those whose chief product, measured by value, is similar. Evidently no rule of classification gives an entirely satisfactory result. In the present instance there are cotton mills that make nothing but sewing cotton, and establishments which must be classed as producing cotton small wares that make a certain quantity of sewing cotton. Although tape and webbings are frequently a minor and incidental product of cotton mills, a small establishment which buys its yarn and makes tape and webbings exclusively may not properly be classed as such a mill.

These considerations will explain why the use of a considerable amount of raw cotton and the operation of a certain number of cotton spindles are reported in a class of mills which, as a rule, do not spin their own yarn. They will also indicate that neither do the following tables disclose the entire product of the articles included under the designation of cotton small wares, nor do all the products of the mills here reported fall properly under that designation. But a fairly accurate statement can be deduced from a comparison with the reports of other textile industries.

Table 25 presents the leading statistics of cotton small wares for 1900.

TABLE 25.—COTTON SMALL WARES: SUMMARY, 1900.

Number of establishments	82
Capital	$6,397,385
Salaried officials, clerks, etc., number	189
Salaries	$226,625
Wage-earners, average number	4,932
Total wages	$1,563,442
Men, 16 years and over	1,367
Wages	$671,516
Women, 16 years and over	3,173
Wages	$828,732
Children, under 16 years	392
Wages	$63,194
Miscellaneous expenses	$462,534
Cost of materials used	$3,110,137
Value of products	$6,394,164
Active spindles, number	42,600
Looms, number	5,070
Cotton consumed, bales	7,213
Cotton consumed, pounds	3,640,878

The geographical distribution of the establishments reporting is as follows: New England states, 32; Middle states, 47; Georgia, 1; Ohio, 1; Indiana, 1. The several industries are of a class which tends to spring up within cities or in their suburbs, and a large proportion of those here reported are in, or in the immediate vicinity of, New York, Philadelphia, Boston, and Providence. They are for the most part small establishments. The average capital indicated is something less than $80,000. There are, however, some large establishments in Rhode Island. The combined capital of three of them is nearly $2,000,000, which is almost one-third of the amount reported for the whole country. The elimination of the returns of these three mills would bring the average capital down to about $56,000. The average number of hands employed in each establishment was 60; outside of Rhode Island, it was but 41. An inspection of the average number employed during each month indicates great steadiness of employment, the slight falling off during the summer months being no greater than is easily explained by the practice of allowing employees to take a vacation.

The chief materials used are shown by the following statement:

MATERIALS.	Pounds.	Cost.
Raw cotton	3,640,878	$264,541
Cotton yarn	10,860,648	1,873,032
Woolen yarn	274,351	91,251
Worsted yarn	47,308	33,414
Silk yarn	43,709	134,296
Spun-silk yarn	9,852	25,394
Other yarn	718,444	139,666
Raw cotton and yarns, total	15,595,190	2,561,594
All other materials		548,543
Total cost		3,110,137

Ninety-three per cent in weight and 83 per cent in value of the raw or spun fiber used was cotton, but in the aggregate not a little of the product was mixed as to material.

A classification of products can not be made. Manufacturers were not asked to report with exactness the specific character of their goods, and indeed, the variety and the absence of standard units of quantity would have rendered such specification valueless. Nevertheless, from the total value of products reported, $6,394,164, the following items should be subtracted as not coming properly under the classification of cotton small wares: Upholstery goods, $35,000; yarns for sale, $27,403; sewing cotton, $83,453; and twine, $71,465—a total of $217,321. On the other hand, in order to obtain the actual total of cotton small wares produced in all the mills of the country, and not merely of these here reported, it is necessary to add to the remainder the sum of $328,801, value of tape and webbings made in cotton mills, and a large but unknown sum out of the item of more than $5,000,000 reported in the returns of cotton manufacturing proper, under the head of "All other products of cotton."

Table 26 presents the detailed statistics for the industry for 1900.

TABLE 26.—COTTON SMALL WARES, BY STATES: 1900.

	United States.	Massachusetts.	New Jersey.	New York.	Pennsylvania.	Rhode Island.	All other states.[1]
Number of establishments	82	14	5	18	24	16	5
Character of organization:							
Individual	30	5	2	10	6	5	2
Firm and limited partnership	24	3	.....	6	11	3	1
Incorporated company	28	6	3	2	7	8	2
Capital:							
Total	$6,397,385	$528,258	$109,917	$550,938	$1,945,844	$2,876,699	$85,729
Land	$408,824	$19,774	$7,500	$12,500	$107,500	$259,000	$2,550
Buildings	$863,128	$77,353	$47,300	$42,000	$215,500	$468,875	$12,100
Machinery, tools, and implements	$2,159,876	$240,819	$222,312	$203,455	$627,758	$834,726	$30,806
Cash and sundries	$2,965,557	$190,312	$132,805	$292,983	$995,086	$1,314,098	$40,273
Proprietors and firm members	85	11	1	22	34	13	4
Salaried officials, clerks, etc.:							
Total number	189	24	16	42	50	48	9
Total salaries	$226,625	$32,150	$18,730	$36,449	$64,620	$67,924	$6,752
Officers of corporations—							
Number	43	12	4	1	9	11	3
Salaries	$82,660	$19,000	$7,560	$5,100	$23,900	$24,600	$2,200
General superintendents, managers, clerks, etc.—							
Total number	146	12	12	38	41	37	6
Total salaries	$143,965	$13,150	$11,170	$31,049	$40,720	$43,324	$4,552
Men—							
Number	118	10	8	33	31	30	6
Salaries	$129,788	$12,200	$8,500	$28,149	$36,805	$39,582	$4,552
Women—							
Number	28	2	4	5	10	7	.....
Salaries	$14,177	$950	$2,670	$2,900	$3,915	$3,742	.....
Wage-earners, including pieceworkers, and total wages:							
Greatest number employed at any one time during the year	5,504	519	176	684	1,647	2,299	179
Least number employed at any one time during the year	4,355	353	156	489	1,211	2,068	78
Average number	4,932	430	163	600	1,444	2,209	86
Wages	$1,563,442	$151,254	$43,821	$163,454	$454,947	$735,888	$14,078
Men, 16 years and over—							
Average number	1,367	140	56	146	337	650	38
Wages	$671,516	$68,636	$22,535	$70,315	$149,479	$351,686	$8,865
Women, 16 years and over—							
Average number	3,173	241	80	447	1,001	1,379	25
Wages	$828,752	$74,138	$18,059	$92,034	$287,328	$353,637	$3,536
Children, under 16 years—							
Average number	392	49	27	7	106	180	23
Wages	$63,194	$8,480	$3,227	$1,105	$18,140	$30,565	$1,677
Average number of wage-earners, including pieceworkers, employed during each month:							
Men, 16 years and over—							
January	1,393	148	59	148	352	641	45
February	1,398	143	59	154	357	640	45
March	1,441	148	59	161	375	651	47
April	1,439	145	60	167	377	655	35
May	1,408	138	59	154	377	649	31
June	1,280	128	44	118	315	637	38
July	1,249	123	35	132	272	644	43
August	1,270	132	59	137	271	647	24
September	1,345	148	58	143	309	652	35
October	1,384	144	58	150	334	660	38
November	1,390	141	60	145	351	653	40
December	1,407	140	59	144	354	671	39
Women, 16 years and over—							
January	3,203	239	82	466	1,021	1,366	29
February	3,191	226	82	467	1,021	1,366	29
March	3,229	253	85	469	1,025	1,368	29
April	3,144	247	82	465	945	1,380	25
May	3,124	239	82	439	945	1,393	26
June	2,979	232	66	374	899	1,382	26
July	3,075	223	66	419	969	1,378	20
August	3,114	232	80	426	982	1,379	15
September	3,216	251	84	454	1,021	1,384	22
October	3,261	249	84	467	1,053	1,384	24
November	3,274	250	86	456	1,073	1,384	25
December	3,266	252	81	462	1,063	1,384	24
Children, under 16 years—							
January	410	66	29	7	112	169	27
February	386	49	29	7	111	163	27
March	409	51	29	8	120	174	27
April	401	49	29	8	122	173	20
May	392	39	29	6	115	180	23
June	372	35	19	4	110	180	24
July	371	41	18	7	103	181	21
August	371	42	29	8	100	181	11
September	386	58	29	8	86	184	21
October	391	54	29	8	93	184	23
November	414	57	29	9	98	194	27
December	401	52	29	8	97	192	23
Skilled operatives by classes, average number:							
Spinners, mule—							
Men, 16 years and over	11	.....	.....	7	.....	2	2
Women, 16 years and over	11	.....	.....	11	.....	.....	.....
Children, under 16 years	4	.....	.....	.....	.....	4	.....
Spinners, frame—							
Men, 16 years and over	39	.....	20	7	4	7	1
Women, 16 years and over	117	.....	20	14	23	60	.....
Children, under 16 years	25	.....	12	.....	.....	6	7
Weavers—							
Men, 16 years and over	430	20	13	63	200	129	5
Women, 16 years and over	1,136	122	5	63	666	278	2
Machinery:							
Producing spindles, not including twisting and doubling spindles, number—							
Mule	4,300	.....	.....	.....	.....	3,400	900
Frame	38,300	.....	.....	.....	.....	36,500	1,800
Looms, number—							
On plain cloths—							
Less than 28 inches wide	10	.....	.....	10	.....	.....	.....
From 28 to 32 inches wide	38	.....	.....	.....	38	.....	.....
36 inches wide and over	47	.....	.....	6	41	.....	.....
On fancy weaves	124	.....	.....	103	21	.....	.....

[1] Includes establishments distributed as follows: Connecticut, 2; Georgia, 1; Indiana, 1; Ohio, 1.

TABLE 26.—COTTON SMALL WARES, BY STATES: 1900—Continued.

	United States.	Massachusetts.	New Jersey.	New York.	Pennsylvania.	Rhode Island.	All other states.[1]
Machinery—Continued.							
Looms, number—Continued.							
On tapes and other narrow goods	2,202	282	8	66	1,173	668	5
On bags and other special fabrics	2,649	20	42	7	411	2,158	11
Miscellaneous expenses:							
Total	$462,534	$31,754	$25,265	$34,497	$205,317	$155,731	$10,170
Rent of works	$51,543	$5,362	$1,000	$15,240	$22,179	$6,612	$1,150
Taxes, not including internal revenue	$25,931	$4,515	$1,086	$905	$4,222	$14,818	$385
Rent of offices, interest, insurance, and all sundry expenses not hitherto included	$275,621	$21,877	$17,954	$15,152	$88,306	$123,697	$8,635
Contract work	$109,439	.....	$5,225	$3,200	$90,410	$10,604	.....
Materials used:							
Total cost	$3,110,137	$321,007	$230,892	$460,876	$938,058	$1,096,455	$62,849
Cotton—							
Domestics, other than sea-island, bales	7,213	200	.....	.....	.....	6,718	295
Pounds	3,640,878	100,189	.....	.....	.....	3,402,898	137,791
Cost	$264,541	$6,718	.....	.....	.....	$247,489	$10,334
Yarns not made in mill—							
Cotton, pounds	10,860,648	1,767,690	1,126,016	1,014,020	3,632,287	2,916,843	403,792
Cost	$1,873,032	$255,157	$158,360	$304,778	$595,864	$515,415	$43,458
Woolen, pounds	274,351	.....	421	40,190	233,000	740	.....
Cost	$91,251	.....	$346	$37,875	$52,660	$370	.....
Worsted, pounds	47,308	250	.....	18,700	25,916	1,675	767
Cost	$33,414	$150	.....	$11,375	$19,962	$1,340	$587
Silk, pounds	43,709	.....	400	4,771	22,410	16,128	.....
Cost	$134,296	.....	$1,700	$20,187	$100,841	$11,568	.....
Spun silk, pounds	9,852	.....	.....	703	9,149	.....	.....
Cost	$25,394	.....	.....	$3,010	$22,384	.....	.....
Other yarns, pounds	718,444	1,042	302,625	96,660	165,727	152,390	.....
Cost	$139,666	$407	$21,633	$15,170	$38,858	$63,598	.....
Waste of other mills, pounds	399,500	6,500	.....	.....	3,000	.....	390,000
Cost	$2,310	$390	.....	.....	$750	.....	$1,170
Oil, gallons	19,458	2,157	150	841	2,570	12,515	1,225
Cost	$3,935	$425	$58	$173	$698	$2,351	$230
Starch, pounds	144,430	12,355	.....	.....	14,000	113,075	5,000
Cost	$3,908	$493	.....	.....	$400	$2,890	$125
Chemicals and dye stuffs	$46,339	$1,172	$3,000	.....	$1,228	$40,689	$250
Fuel	$69,578	$6,690	$3,504	$1,777	$11,502	$44,670	$1,435
Rent of power and heat	$23,381	$3,510	$1,200	$3,749	$11,296	$3,626	.....
Mill supplies	$101,576	$18,061	$2,370	$2,298	$17,070	$60,931	$846
All other materials	$284,652	$26,543	$37,307	$56,372	$60,138	$101,430	$2,862
Freight	$12,864	$1,291	$1,414	$4,112	$4,407	$88	$1,552
Products:							
Total value	$6,394,164	$646,848	$390,477	$840,017	$2,026,227	$2,379,500	$111,095
Upholstery goods—							
Tapestries, piece goods, and curtains, square yards	35,000	.....	.....	35,000	.....	.....	.....
Value	$35,000	.....	.....	$35,000	.....	.....	.....
Tape and webbing, value	$2,192,601	$215,336	.....	$91,000	$907,516	$963,249	$15,500
Yarns for sale, pounds	116,609	.....	.....	.....	.....	116,609	.....
Value	$27,403	.....	.....	.....	.....	$27,403	.....
Sewing cotton, pounds	165,996	.....	74,000	.....	.....	91,996	.....
Value	$83,453	.....	$37,000	.....	.....	$46,453	.....
Twine, pounds	510,468	.....	.....	.....	.....	.....	510,468
Value	$71,465	.....	.....	.....	.....	.....	$71,465
Waste for sale, pounds	761,857	340,379	5,000	.....	300	396,178	20,000
Value	$11,336	$4,027	$75	.....	$105	$6,829	$300
Other products of cotton	$2,711,268	$345,905	$330,402	$105,254	$628,771	$1,282,946	$17,990
All other products	$1,261,638	$81,580	$23,000	$608,763	$489,835	$52,620	$5,840
Goods exported during the year ending June 30, 1900	$23,447	$300	$900	.....	$8,262	$13,985	.....
Weight of products, pounds:							
Piece goods	735,154	241,454	.....	.....	208,700	285,000	.....
Yarns spun and not woven in the mill	168,605	.....	.....	.....	.....	168,605	.....
Other products	10,373,860	1,021,560	1,153,330	1,171,244	2,691,749	3,560,771	775,206
Dyeing and mercerizing cloth and yarn in cotton mills:							
Dyeing—							
Yarn, pounds	1,607,271	.....	485,000	.....	.....	1,122,271	.....
Additional value given by dyeing	$107,689	.....	$58,000	.....	.....	$49,689	.....
Mercerizing—							
Yarn, pounds	10,000	.....	.....	.....	.....	10,000	.....
Additional value given by mercerizing	$1,000	.....	.....	.....	.....	$1,000	.....
Comparison of products:							
Number of establishments reporting for both years	54	10	3	9	17	10	5
Value for census year	$4,914,272	$552,141	$165,283	$585,500	$1,559,062	$1,941,191	$111,095
Value for preceding business year	$4,095,927	$484,312	$129,560	$426,700	$1,267,143	$1,708,859	$79,353
Power:							
Number of establishments reporting	80	13	5	18	24	16	4
Total horsepower	6,221	800	264	290	974	3,553	340
Owned—							
Engines—							
Steam, number	48	6	3	4	14	18	3
Horsepower	4,425	435	254	120	803	2,623	190
Gas or gasoline, number	4	1	1	2	.....	.....	.....
Horsepower	46	36	6	4	.....	.....	.....
Water wheels, number	19	5	.....	2	.....	9	3
Horsepower	1,060	240	.....	36	.....	634	150
Electric motors, number	5	.....	.....	.....	1	4	.....
Horsepower	245	.....	.....	.....	5	240	.....
Other power, horsepower	10	.....	.....	.....	.....	10	.....
Rented—							
Electric, horsepower	159	63	.....	76	20	.....	.....
Other kind, horsepower	276	26	4	54	146	46	.....
Furnished to other establishments, horsepower	40	15	.....	.....	5	20	.....
Establishments classified by number of persons employed, not including proprietors and firm members:							
Total number of establishments	82	14	5	18	24	16	5
Under 5	11	5	.....	2	1	1	2
5 to 20	27	1	2	7	9	7	1
21 to 50	10	2	1	3	3	1	.....
51 to 100	21	6	2	5	6	1	1
101 to 250	8	.....	.....	.....	4	3	1
251 to 500	4	.....	.....	1	1	2	.....
501 to 1,000	1	.....	.....	.....	.....	1	.....

[1] Includes establishments distributed as follows: Connecticut, 2; Georgia, 1; Indiana, 1; Ohio, 1.

WOOL.

WOOL MANUFACTURES,

ALSO HOSIERY AND KNIT GOODS, SHODDY, AND FUR HATS.

By William J. Battison, *Expert Special Agent.*

The Eleventh Census completed the statistical record of the wool manufacture in the United States for its first hundred years under the factory system. The Twelfth Census closed the record for the Nineteenth century and established the point of departure for the Twentieth.

At the census of 1890 the statistics of the industry were presented more in detail than ever before. The schedules prepared for the census of 1900 were in most respects identical with those used ten years earlier. The returns received were generally prepared with care, and with a fair understanding of the purport of the inquiries.

The expert special agent desires to express his appreciation of the uniform courtesy shown by manufacturers in the preparation of their reports, and in response to his requests for information needed to complete reports lacking in some details, or where through misunderstanding the questions were not properly answered.

Care was taken at the Eleventh Census to properly group, so far as possible, the statistics of the various branches of the industry according to the general character of the production of mills, and the tables then prepared were made the basis of improved tables in 1900.

The industry is divided into groups, as in 1890, under the general heads of woolen goods, including carding mills; worsteds; carpets, other than rag; felt goods; and wool hats; and, separately given, is a report on wool scouring and wool pulling, which has not hitherto been attempted. The statistics of the hosiery and knit goods manufacture are presented in connection with those of the wool manufacture in certain tables for comparative purposes. Formerly the larger proportion of the raw material consumed in this industry was wool, so that it was proper to combine the reports of this industry with those of the wool manufacture. At the present time the cotton fiber predominates so greatly that the industry can hardly be considered as a branch of the wool industry, but should be treated as an independent or cognate industry. The manufacture of shoddy and the recovery of the waste products of the wool manufacture, which are currently known under the general term "shoddy," was reported upon the special schedule with the wool manufacture. The statistics are contained in this report, but are separately given. The fur hat manufacture is also reported herewith, not as a part of the wool manufacture, but because the two are closely related in raw material and products, and because the fur hat manufacture has largely superseded the wool hat manufacture. Heretofore the reports for fur hats have been so combined with those for straw and silk hats that it has been impossible to obtain satisfactory statistics of the industry.

Table 1 shows the comparative statistics of the wool manufacture, including hosiery and knit goods, 1880 to 1900, with percentages of increase.

TABLE 1.—WOOL MANUFACTURE, INCLUDING HOSIERY AND KNIT GOODS, COMPARATIVE SUMMARY, 1880 to 1900, WITH PERCENTAGES OF INCREASE FOR EACH DECADE.

	DATE OF CENSUS.			PER CENT OF INCREASE.	
	1900	1890	1880	1890 to 1900	1880 to 1890
Number of establishments	2,335	2,489	2,689	[1]6.2	17.4
Capital	$392,040,353	$296,494,481	$159,091,869	32.2	86.4
Salaried officials, clerks, etc., number	7,304	[2]5,273	[3]	38.5	.....
Salaries	$9,580,293	[2]$5,742,848	[3]	66.8	.....
Wage-earners, average number	242,495	213,859	161,557	13.4	32.4
Total wages	$82,292,444	$70,917,894	$47,389,087	16.0	49.6
Men, 16 years and over	104,525	93,396	75,459	11.9	23.8
Wages	$45,303,600	$39,743,431	[3]	14.0	.....
Women, 16 years and over	117,706	105,770	66,814	11.3	58.3
Wages	$33,793,231	$28,889,244	[3]	17.0	.....
Children, under 16 years	20,264	14,693	19,284	37.9	[1]23.8
Wages	$3,195,613	$2,285,219	[3]	39.8	.....
Miscellaneous expenses	$23,929,797	$19,249,508	[4]	24.3	.....
Cost of materials used	$232,230,986	$203,095,572	$164,371,551	14.3	23.6
Value of products	$392,473,050	$337,768,524	$267,252,913	16.2	26.4

[1] Decrease.
[2] Includes proprietors and firm members, with their salaries; number only reported in 1900, but not included in this table.
[3] Not reported separately.
[4] Not reported.

The whole number of establishments reporting on the special schedules for wool manufactures and hosiery and knit goods was 2,653, viz, 1,035 woolen mills, including carding mills; 186 worsted mills; 133 carpet manufactories; 36 felt goods factories; 24 wool hat mills; 921 hosiery and knit goods factories; 171 fur hat facto-

ries; 105 shoddy mills; and 25 wool-scouring plants; also the 17 educational, eleemosynary, and penal institutions shown in the following table. One hundred and fifty-three establishments were idle during the census year, 117 of which were wool manufactories and 36 were hosiery and knit goods mills. The fur hat factories, shoddy mills, and wool-scouring establishments, given above, are not included in the general tabulation for the wool manufacture (Table 29), because such mills were not so reported in 1890. Deducting these, and the 17 educational, eleemosynary, and penal institutions, and the whole number reported for the wool and hosiery and knit goods manufactures was 2,335. At the census of 1890 a total of 2,489 similar mills was reported. The decrease in number was 154, equal to 6.2 per cent. That this does not indicate any curtailment of the industry is shown by Table 5, giving the machinery of the wool manufacture, 1880 to 1900.

Table 2 is a summary for wool manufactures, including hosiery and knit goods, in educational, eleemosynary, and penal institutions, 1890 and 1900.

The work carried on in educational, eleemosynary, and penal institutions that employed the wool or cotton fiber was confined largely to the hosiery and knit goods manufacture. Only 4 of these institutions manufactured woolen goods in 1900. These were located in Iowa, Massachusetts, New York, and Texas. The 17 institutions reporting had an aggregate capital of $588,305, of which $169,765 was invested in machinery, tools, and implements. They employed 71 superintendents, managers, and clerks, and operated 17 sets of woolen cards, 7,472 woolen spindles, and 2,936 cotton spindles (of which 64 were doubling spindles), 79 broad looms, 22 narrow looms, and 96 hand looms on woolen or mixed goods. They consumed 379,319 pounds of wool, 123,747 pounds of cotton, 400 pounds of woolen yarn, 470 pounds of merino yarn, and 890,450 pounds of cotton yarn, and other materials, costing in all $450,905, and produced goods to the value of $644,607, of which $269,764 were woolen goods, consisting principally of flannels, blankets, and satinets, and $374,843 of hosiery and knit goods.

TABLE 2.—WOOL MANUFACTURES, COMPARATIVE SUMMARY, INCLUDING HOSIERY AND KNIT GOODS; EDUCATIONAL, ELEEMOSYNARY, AND PENAL INSTITUTIONS: 1890 AND 1900.

STATES.	Year.	Number of institutions.	EMPLOYEES. Total number.	EMPLOYEES. Total amount paid.	Miscellaneous expenses.	Cost of materials used.	Value of products.
United States	1900	17	584	$113,778	$24,191	$450,905	$644,607
	1890	14	1,419	88,279	(1)	279,800	462,585
Illinois[2]	1900	3	481	61,982	9,305	84,283	196,990
	[1] 1890	.....	.....	.....	.....	.....	.....
New York[3]	1900	3	27	26,123	(1)	143,596	178,924
	1890	3	604	24,697	(1)	53,708	97,995
Pennsylvania[4]	1900	3	8	10,708	7,281	32,653	55,978
	1890	3	432	36,000	(1)	132,181	196,306
All other states[5]	1900	8	68	14,965	7,605	190,373	212,715
	1890	8	383	27,522	(1)	93,911	168,284

[1] Not reported.
[2] Institutions in Illinois: 1900, hosiery and knit goods, 3.
[3] Institutions in New York: 1900, hosiery and knit goods, 2; woolen goods, 1. 1890, hosiery and knit goods, 3.
[4] Institutions in Pennsylvania: 1900, hosiery and knit goods, 3. 1890, hosiery and knit goods, 1; carpets and rugs, other than rag, 2.
[5] Includes institutions distributed as follows: 1900, Iowa, 1 (woolen goods); Massachusetts, 1 (woolen goods); Missouri, 1 (hosiery and knit goods); New Jersey, 1 (hosiery and knit goods); Ohio, 1 (hosiery and knit goods); Tennessee, 1 (hosiery and knit goods); Texas, 1 (woolen goods); Wisconsin, 1 (hosiery and knit goods). 1890, Maryland, 1 (hosiery and knit goods); Minnesota, 1 (hosiery and knit goods); New Hampshire, 1 (hosiery and knit goods); Ohio, 2 (hosiery and knit goods); Texas, 1 (woolen goods); Virginia, 1 (hosiery and knit goods); Wisconsin, 1 (hosiery and knit goods).

THE WOOL MANUFACTURE.

Table 3 presents a comparative summary of the wool manufacture as returned at each census from 1850 to 1900, inclusive, with the percentages of increase for each decade.

TABLE 3.—WOOL MANUFACTURES, COMPARATIVE SUMMARY, 1850 TO 1900, WITH PER CENT OF INCREASE FOR EACH DECADE.

	DATE OF CENSUS. 1900	1890	1880	1870	1860[1]	1850	PER CENT OF INCREASE. 1890 to 1900	1880 to 1890	1870 to 1880	1860 to 1870	1850 to 1860
Number of establishments	1,414	1,693	2,330	3,208	1,476	1,675	[2]16.5	[2]27.3	[2]27.4	117.3	[2]11.9
Capital	$310,179,749	$245,886,743	$143,512,278	$121,451,059	$38,814,422	$31,971,631	26.1	71.3	18.2	212.9	21.4
Salaried officials, clerks, etc., number	4,495	[3]3,652	(4)	(4)	(4)	(4)	23.1	.....	.....	.....	.....
Salaries	$6,455,495	[3]$4,057,695	(4)	(4)	(4)	(4)	59.1	.....	.....	.....	.....
Wage-earners, average number	159,108	154,271	132,672	105,071	50,419	45,438	3.1	16.3	26.3	108.4	11.0
Total wages	$57,933,817	$54,339,775	$40,687,612	$35,928,150	$11,699,630	(5)	6.6	33.6	13.2	207.1	.....
Men, 16 years and over	83,371	78,550	67,942	53,400	29,852	26,559	6.1	15.6	27.2	78.9	12.4
Wages	$36,412,872	$33,702,231	(4)	(4)	(4)	(4)	8.0	.....	.....	.....	.....
Women, 16 years and over	64,141	64,941	49,107	39,150	20,567	18,879	[2]1.2	32.3	25.4	90.4	8.9
Wages	$19,549,423	$18,883,174	(4)	(4)	(4)	(4)	3.5	.....	.....	.....	.....
Children, under 16 years	11,596	10,777	15,623	12,521	(4)	(4)	7.6	[2]31.0	24.8	.....	.....
Wages	$1,971,522	$1,754,370	(4)	(4)	(4)	(4)	12.4	.....	.....	.....	.....
Miscellaneous expenses	$17,329,932	$15,622,263	(6)	(6)	(6)	(6)	10.9	.....	.....	.....	.....
Cost of materials used	$181,159,127	$167,233,987	$149,160,600	$124,318,792	$43,447,048	$28,831,583	8.3	12.1	20.0	186.1	50.7
Value of products	$296,990,484	$270,527,511	$238,085,686	$199,257,262	$73,454,000	$48,608,779	9.8	13.6	19.5	171.3	51.1

[1] Carding mills were not included in 1860.
[2] Decrease.
[3] Includes proprietors and firm members, with their salaries; number only reported in 1900, but not included in this table. (See Table 30.)
[4] Not reported separately.
[5] Not fully reported.
[6] Not reported.

The table shows that there has been a satisfactory increase in the industry in capital, wage-earners, wages, cost of materials used, and value of products during the half century. The greatest increase in value of products, $125,803,262, and the greatest percentage of increase, 171.3, were during the decade ending with 1870. This was also the period of greatest increase in establishments, wage-earners, wages, and cost of materials used. The extraordinary growth during this decade was due largely to the demand for woolens for army purposes and to the cotton famine.

CONDITIONS IN 1900.

The year 1900 was an unfortunate one for an official investigation of the wool manufacture. It was a year of unusual fluctuations in prices, and of severe losses in the wool market. The machinery in many mills was only in partial operation, or run on part time, and production was on a scale less than normal. Like the preceding year, it was marked by unusual conditions, both as to the chief raw material and manufactured products.

A remarkable speculative rise in the price of wool occurred in 1899. Ohio XX wool, which was quoted in April in Boston at 26½ cents a pound, at the close of the year had advanced to 35 and 36 cents, or over 36 per cent. During the same period Port Phillip (Australia) average greasy wool advanced in London from 20 cents to 35 cents, an advance of 75 per cent. These advances were followed by a sudden collapse in the market abroad, which was reflected here by a fall in Ohio XX wool to 29 and 30 cents in June, 1900. The Bradford (England) Observer, in its review of the wool market in December, 1900, says of this period:

> If a vote were taken on 'Change to-day, the answer would be almost unanimous that 1900 has been the worst year we ever had. To understand this year we must go back at least two years. About the middle of 1898 it began to be clear that the commerce of the world had entered upon a period of expansion. Toward the end of 1898 business began to look up, especially in those goods which are made from merino, and prices began slowly to harden, and at the London sales it looked as if, after all, there might be a shortage of merino. Men said that we were entering upon an era of higher prices. They lost their timidity, and toward the end of the year became absolutely reckless. The value of 60's Botany tops, which had been 20½d. before the rise began at the end of 1898, had in twelve months risen to 34½d. per pound. The high price killed the trade, and there was collapse. In ten months, during which there was very little selling, the price fell to 18d. At the end of last year the trade of the whole world was in a prosperous condition, and the tremendous collapse which occurred took everybody by surprise. The plain lesson is that wool is wool, whether it be merino or crossbred and that no class of raw material can for long maintain a price which is out of all proportion higher than another.

These sudden changes in wool prices, and the strenuous competition for business, led to the failure or liquidation of many large and until then prosperous concerns, and was largely instrumental in bringing about consolidations of establishments under one management.

Two important changes in the tariff laws occurred during the decade. Under the first—the law of 1894—wool, which had been dutiable at nearly the same rates for twenty-seven years, was put upon the free list, and imports of manufactures of wool which had been for the same period subjected to a duty, partly specific and partly ad valorem, were placed on an ad valorem basis. The second change came with the tariff of 1897, when wool was replaced on the dutiable list at nearly the same rates as formerly, and the compound system of duties again applied to woolen goods.

IMPORTS OF WOOL.

The effect of these laws on the imports of wool was very marked, as is shown in the following tables.

The imports of wool for the seven years ending June 30, 1890, under the tariff law of 1883, were:

	Total, pounds.	Yearly average, pounds.
Class 1	160,497,317	22,928,188
Class 2	45,285,291	6,469,327
Class 3	531,764,968	75,966,424
All classes	737,547,576	105,363,939

The tariff law of 1890 became operative October 6 in that year, and continued in force until August 28, 1894. It did not greatly change the duties previously existing on wool and woolens. The total imports of wool under this law were:

	Total, pounds.	Yearly average, pounds.
Class 1	134,408,715	34,317,120
Class 2	18,587,124	4,745,648
Class 3	342,430,886	87,429,162
All classes	495,426,725	126,491,930

From September 1, 1894, to August 1, 1897, the period of the operation of the law of 1894, the imports of wool were:

	Total, pounds.	Yearly average, pounds.
Class 1	413,784,829	141,869,084
Class 2	70,127,994	24,043,884
Class 3	310,654,503	106,510,115
All classes	794,567,326	272,423,083

In the fiscal year 1896–97 occurred the largest importation of foreign wool ever known in the history of the United States for any one year, amounting to 350,852,026 pounds.

Between August 1, 1897, and June 30, 1900, under the present law the imports of wool were:

	Total, pounds.	Yearly average, pounds.
Class 1	81,947,914	28,096,428
Class 2	15,894,619	5,449,585
Class 3	245,339,749	84,116,485
All classes	343,182,282	117,662,498

The total importations from October, 1890, to June 30, 1900, were:

	Total, pounds.	Yearly average, pounds.
Class 1	630,141,158	64,629,893
Class 2	104,609,737	10,729,204
Class 3	898,425,138	92,146,168
All classes	1,633,176,333	167,505,265

The average annual imports for the first period of the decade were 126,491,930 pounds; in the second, 272,423,083 pounds; and in the third, 117,662,498 pounds. The average for the decade was 167,505,265 pounds, a quantity more than 60,000,000 pounds in excess of the average importations under the law of 1883. By far the greater part of the increased importations was of class 1 wools.

IMPORTS OF WOOL GOODS.

The imports of wool goods show a similar increase. The annual average for the first period was $31,102,288 in value; for the second, $47,342,664. The very large imports of this period were followed by much smaller imports than usual, and in the third period the annual average amounted to only $14,186,264.

The imports of wool goods for these periods by years were as follows, values only being given, as quantities of certain kinds of goods are not obtainable:

Nine months ending June 30, 1891	$24,204,780
Year ending June 30, 1892	35,565,879
Year ending June 30, 1893	38,048,515
Year ending June 30, 1894	19,439,372
July and August 1894	4,558,747
Total	121,817,293
Annual average	31,102,288
Ten months ending June 30, 1895	31,981,143
Year ending June 30, 1896	53,494,400
Year ending June 30, 1897	49,162,992
July, 1897	3,444,234
Total	138,082,769
Annual average	47,342,664
Eleven months ending June 30, 1898	11,379,537
Year ending June 30, 1899	13,832,621
Year ending June 30, 1900	16,164,446
Total	41,376,604
Annual average	14,186,264

RANK OF STATES IN WOOL MANUFACTURE ACCORDING TO VALUE OF PRODUCT.

Table 4 shows the rank of the 10 states having the greatest value of product in the wool manufacture, and their relative rank in each of the various branches, 1890 and 1900.

TABLE 4.—WOOL MANUFACTURE—RANK OF STATES, BY VALUE OF PRODUCTS: 1890 AND 1900.[1]

TOTAL, ALL BRANCHES.					WOOLEN GOODS.					WORSTED GOODS.				
States.	Rank.	1900	Rank.	1890	States.	Rank.	1900	Rank.	1890	States.	Rank.	1900	Rank.	1890
Massachusetts	1	$81,041,537	2	$67,599,321	Massachusetts	1	$30,888,104	1	$35,771,161	Massachusetts	1	$40,557,363	2	$21,933,775
Pennsylvania	2	71,878,503	1	72,393,182	Pennsylvania	2	25,389,344	2	29,878,010	Rhode Island	2	33,341,329	1	22,319,684
Rhode Island	3	38,671,879	3	32,204,629	Maine	3	11,633,232	6	7,521,317	Pennsylvania	3	22,109,392	3	17,861,776
New York	4	30,813,339	4	28,563,569	Connecticut	4	8,097,218	4	9,082,493	New Jersey	4	6,823,721	7	2,058,662
New Jersey	5	13,793,144	7	8,528,070	N. Hampshire	5	7,624,062	5	8,004,264	New York	5	5,958,259	4	5,763,102
Maine	6	13,412,784	8	7,521,317	New York	6	6,715,005	8	5,188,020	Connecticut	6	4,539,814	5	4,651,402
Connecticut	7	12,637,032	5	13,733,895	Rhode Island	7	5,330,550	3	9,884,945	Maine	7	1,779,552	.....	(2)
N. Hampshire	8	7,624,062	6	10,769,240	New Jersey	8	4,755,393	7	5,652,166	N. Hampshire		(3)	6	2,764,976
Vermont	9	2,572,646	10	2,723,683	Vermont	9	2,572,646	10	2,723,683					
Tennessee	10	1,517,194	16	1,216,419	Tennessee	10	1,517,194	16	1,216,419					

CARPETS AND RUGS, OTHER THAN RAG.					FELT GOODS.					WOOL HATS.				
States.	Rank.	1900	Rank.	1890	States.	Rank.	1900	Rank.	1890	States.	Rank.	1900	Rank.	1890
Pennsylvania	1	$23,113,058	1	$22,886,416	New York	1	$1,734,136	1	$1,517,199	New York	1	$1,376,721	2	$1,489,132
New York	2	15,029,218	2	14,606,116	Massachusetts	2	1,526,830	2	918,890	Pennsylvania	2	1,106,076	3	1,444,180
Massachusetts	3	6,966,237	3	7,275,009	New Jersey	3	691,203	.....	(3)	Massachusetts	3	1,103,003	1	1,700,486
New Jersey	4	1,522,827	4	817,242	Pennsylvania	4	160,633	4	322,800					
					Ohio	.....	(3)	3	406,700					

[1] This table does not include statistics of establishments under 3 in the various subdivisions, and the totals, therefore, are less than in the detailed statements at the end of this report.
[2] Included in "all other states" in 1890.
[3] Included in "all other states" in 1900.

In total value of products Massachusetts led in 1900, with a product valued at $81,041,537; it was second in 1890. Pennsylvania, first in 1890, was second in 1900, with $71,878,503. No other state approached these two. Rhode Island was third in rank—the same position it held in 1890—with a product somewhat less than half that of Massachusetts, followed by New York, with a product not quite half that of Pennsylvania. New Jersey, Maine, and Connecticut were very close together, with but little over $1,000,000 difference in the value of their products. New Hampshire was eighth, with products of $7,624,062. Vermont had $2,572,646, and Tennessee $1,517,194. These 10 states were the producers of nearly 70 per cent of the total wool manufac-

tures of the United States. Their relative standing in the various branches differs from their standing in the combined industry. In the manufacture of woolen goods Massachusetts was first as in 1890 and Pennsylvania second. Maine, Connecticut, and New Hampshire, which ranked sixth, seventh, and eighth in total value, were third, fourth, and fifth, respectively, in woolen goods. New York was sixth and Rhode Island seventh.

In worsted manufactures Massachusetts remained in the lead, with products valued at $40,557,363, followed by Rhode Island, Pennsylvania, New Jersey, New York, Connecticut, and Maine, in the order named. In the carpet manufacture Pennsylvania ranked first, as in 1890, with products valued at $23,113,058, followed by New York with $15,029,218. Massachusetts was third with $6,966,237, and New Jersey fourth. The manufacture of felts was carried on in 36 establishments, all but 11 of which were in the states of New York, Massachusetts, New Jersey, and Pennsylvania. New York held first rank, closely followed by Massachusetts. The wool hat manufacture was carried on principally in New York, Pennsylvania, and Massachusetts; New York leading in production, with a value of $1,376,721, and Massachusetts coming last, with products valued at $1,103,003. The three states were almost on a level in this branch.

The following is the rank of the three leading cities in the wool manufacture, 1890 and 1900:

RANK OF THREE LEADING CITIES ACCORDING TO VALUE OF PRODUCTS: 1880 TO 1900.

	1900		1890		1880
	Rank.	Value of products.	Rank.	Value of products.	Rank.
Philadelphia, Pa.	1	$56,672,007	1	$73,713,856	1
Lawrence, Mass.	2	25,584,744	3	10,431,192	2
Providence, R. I.	3	18,375,776	2	18,237,531	3

TABLE 5.—MACHINERY OF WOOL MANUFACTURE: 1880 TO 1900.

CLASSES.	1900	1890	1880	PER CENT OF INCREASE.	
				1890 to 1900	1880 to 1890
Cards	6,605	7,015	6,989	[1]5.8	0.4
Combing machines	1,451	839	515	72.9	62.9
Spindles	3,511,099	2,793,147	2,111,973	25.7	32.3
Looms	74,190	69,658	57,297	6.5	21.6

[1] Decrease.

While the number of cards reported in 1900 was 6,605, against 7,015 in 1890—a decrease of 410, or 5.8 per cent—the number of combing machines in 1900 was 1,415, against 839 in 1890, or an increase of 72.9 per cent. Assuming that a combing machine is equal in productive capacity to 2½ sets of cards, and stating the elementary productive machinery on the card basis, the year 1900 shows the equivalent of 10,143 sets of cards, against 9,113 in 1890, an increase of 11.3 per cent in productive capacity. The increase in machinery capacity has been accompanied with a corresponding increase in the quantity of raw material consumed and of goods produced. The cost of materials used has increased 8.3 per cent and the value of products 9.8 per cent.

In the decade 1880–1890, the number of cards increased 0.4 per cent, and of combs 62.9 per cent. A similar calculation to that above shows the increase in productive capacity in that decade to have been 16.4 per cent, a ratio of increase somewhat greater than that of the last decade. An examination of the increase by spindles and looms exhibits a much greater difference. The percentage of increase in spindles was 25.7 from 1890 to 1900, and 32.3 from 1880 to 1890. In looms the increase was 6.5 and 21.6 per cent, respectively.

None of these percentages of increase, however, correctly measure the increase of manufacturing capacity. Improvements in machinery and appliances, and increased size of machines, added very considerably to the increased capacity of the latter period. It is safe to say, in a general way, that as a result of the various improvements, up-to-date machinery will, on the same class of work, produce 10 per cent more than was possible ten years ago.[1]

CARDING MILLS.

Table 6 presents the statistics of the custom carding mills.

[1] The improvements in woolen and worsted looms have been many and varied during the past ten years, facilitating not only an increased production by reason of the higher speed at which it is possible and profitable to operate the loom, but owing also to the various devices embodied in their construction, which aid materially in the ease with which they handle the warp and filling. While ten years ago broad woolen looms were operated in a few instances up to 100 picks per minute, to-day looms of a similar type can be run at from 115 to 120 picks, and in some special cases where the loom has been especially designed for producing a particular class of work, a speed of 140 to 150 picks per minute has been found to give very satisfactory results.

CROMPTON & KNOWLES LOOM WORKS.
CHARLES F. HUTCHINS, *President.*

WORCESTER, Mass., *December 23, 1901.*

TABLE 6.—WOOL CARDING—COMPARATIVE SUMMARY, BY STATES: 1890 AND 1900.

STATES.	Year.	Number of establishments.	Capital.	WAGE-EARNERS. Average number.	WAGE-EARNERS. Total wages.	Miscellaneous expenses.	Cost of materials used.	Value of products.
United States	1900	231	$458,286	140	$53,106	$10,480	$395,116	$534,512
	1890	193	385,411	[1]416	[1]61,618	13,802	332,650	476,278
Alabama	1900	9	8,175	5	843	225	14,664	20,163
	1890	5	6,825	7	1,465	123	3,489	5,180
Arkansas	1900	11	15,025	6	930	258	16,148	21,930
	1890	3	11,635	4	1,237	262	7,085	9,250
Georgia	1900	9	7,111	6	835	103	7,761	11,547
	1890	3	3,025	5	600	129	5,173	7,200
Indiana	[2]1900							
	1890	7	36,765	32	3,451	912	17,280	23,738
Iowa	[2]1900							
	1890	3	4,700	7	2,000	106	11,052	14,500
Kentucky	1900	23	17,067	15	2,406	500	34,827	42,401
	1890	15	23,156	39	5,075	952	46,894	62,92.
Maine	1900	20	56,483	13	4,478	1,174	48,126	65,158
	1890	16	55,050	32	8,164	2,182	41,819	64,033
Michigan	[3]1900							
	1890	10	18,295	26	4,186	888	19,931	29,109
Minnesota	1900	5	13,650	2	600	483	13,666	18,350
	1890	6	11,475	23	3,950	1,166	14,422	20,951
Mississippi	[2]1900							
	1890	3	3,200	5	1,150	55	4,575	6,250
Missouri	1900	17	33,455	13	2,689	510	35,923	46,927
	1890	12	21,799	23	2,003	1,007	14,819	21,530
New Hampshire	[2]1900							
	1890	4	5,925	9	1,240	315	8,443	12,200
New York	1900	16	22,016	2	450	729	19,967	27,869
	1890	21	54,475	33	4,871	1,142	23,126	33,822
North Carolina	1900	9	7,943	2	242	51	5,313	6,824
	1890	13	10,810	23	2,071	397	12,240	17,911
Ohio	1900	3	11,700	3	649	282	4,293	5,984
	1890	7	14,020	25	3,125	705	7,397	11,763
Pennsylvania	1900	26	96,556	11	3,208	1,369	39,843	56,266
	1890	14	25,233	21	2,843	877	16,782	24,500
Tennessee	1900	33	65,919	34	6,861	2,219	60,747	85,890
	1890	19	17,953	33	4,366	467	27,832	38,135
Vermont	1900	8	12,990			122	6,722	8,470
	1890	7	8,585	9	1,650	795	9,133	12,783
Virginia	1900	4	10,740	2	617	165	9,935	12,359
	1890	5	16,010	9	1,477	268	5,816	9,300
West Virginia	1900	12	8,337	3	725	236	15,258	17,946
	1890	7	10,190	15	1,450	88	9,943	13,770
Wisconsin	1900	15	53,194	21	7,318	1,740	49,318	69,511
	1890	5	9,555	15	2,169	615	6,035	9,305
All other states[4]	1900	11	17,925	2	255	314	12,605	16,920
	1890	8	16,730	21	3,075	351	19,364	27,528

[1] Includes 101 for 1890 proprietors and firm members, salaried officials, clerks, etc., with their salaries, it being impossible to segregate these classes from wage-earners for that census.
[2] Included in "all other states."
[3] No establishments reported.
[4] Includes establishments distributed as follows: 1900—Connecticut, 1; Illinois, 1; Indiana, 1; Iowa, 1; Mississippi, 1; New Hampshire, 2; Oregon, 2; South Carolina, 1; Texas, 1. 1890—Illinois, 2; Maryland, 1; Massachusetts, 1; Oregon, 1; South Carolina, 1; Texas, 1; Utah, 1.

These carding mills are small concerns, generally operating the simplest kind of a carding machine, usually 24 inches in width. On this machine are made wool rolls for use in the household spinning industry from wool brought to the card by farmers in the neighborhood. This wool is frequently carded on shares; often the trade is by barter, payment being made in yarn or cloth, if the mill possesses also spinning and weaving apparatus. The carding mill is a branch of the wool manufacture which is passing away, notwithstanding the fact that the census of 1900 revealed a larger number of establishments than in 1890, with an increased capital and value of products. This result was due to a closer canvass, and possibly to the classification of some small establishments as carding mills, which were not so reported in 1890. Great difficulty was experienced in obtaining satisfactory statements from these mills. They are usually conducted by the proprietor, aided by members of his family, no accounts being kept, the mill being in operation only at such times as meet the requirements of customers. The quantity of wool used by carding mills was very considerable in 1900, amounting to 1,540,025 pounds, costing $375,469. The products consisted mostly of rolls and bats, valued at $534,512.

For the benefit of the historian of a vanishing indus-

try, two trade circulars received with the reports of the mills—one from North Carolina, the other from West Virginia—are here reproduced.[1] The information they furnish relative to the quantity of wool required for the production of the goods made in carding mills, which are such as were made by the mills everywhere in the early days of the country, is interesting. So also is the list of prices charged for work, and the suggestions as to the methods of receiving stock, delivering goods, and credits.

[1] WOOL.

The undersigned wishes to inform the public that he still has control of the

MARKWOOD WOOLEN MILL,
at
MARTIN, GRANT COUNTY, W. VA.

And will manufacture Wool on the halves, or will work for cash at the following prices:

Blankets, $2.50 to $3.50 per pair; Cassinet, Cloth and Full Linsey, 30c. per yard; Flannel and Linsey, 25c. per yard; Stocking Yarn, 20c. to 25c. per pound; Single Yarn, 12½c. to 20c. per pound; Fulling, 10c. to 12½c. per yard; Carding Rolls, 5½c. per pound, if greased; if not greased, 6c. per pound; Batting, 5c. per pound.

Persons living at a distance from the mill may leave their wool at either of the wool stands named below, and I will haul the wool to the mill and return the rolls or goods free of charge.

Thanking our many customers for past patronage, and soliciting a continuance of the same, I wish to state that I am prepared to do good work and will guarantee satisfaction.

Respectfully,

JAS. C. BILLMYRE.

Wool may be left at .....
.....
.....

Martin, W. Va., April 10, 1901.

Alpine Woolen Mills, Mount Airy, N. C., Manufacture Cassimers, Jeans, Linseys, Flannels, Blankets, and Yarns. Custom work a specialty.

Carding and spinning	10 cents	per pound
Carding and spinning and doubling and twisting	15 cents	per pound
Coloring wool—black, gray, or brown	5 cents	per pound
Coloring yarns or wool—red, blue, or green	10 cents	per pound
Making rough jeans	25 cents	per yard
Making fulled and finished jeans	30 cents	per yard
Making all-wool cassimer	40 cents	per yard
Making all-wool flannel	20 cents	per yard
Making linseys, cotton warp	18 cents	per yard
Making flannel, cotton warp	15 cents	per yard
Making bed blankets	$2.50	per pair
Making bed blankets, red, etc	$3.00	per pair
Making striped buggy blankets	$1.25	per pair

Ten pounds clean, washed wool will make 9 pounds custom single yarn.
One pound clean, washed wool will make 1 yard all-wool cassimer.
One pound clean, washed wool will make 1½ yards any kind of jeans.
One pound clean, washed wool will make 2½ yards any kind of linsey.
One pound clean, washed wool will make 1½ yards all-wool flannel.
Eight pounds clean, washed wool will make 1 pair blankets.

Unwashed wool will lose one-third to one-half in washing, and sometimes, if burry, it will lose more than this. We would prefer people sending altogether washed wool, as it would save the freight on so much dirt, burrs, etc., though this is optional with them. We will pay freight on all wool shipped to us in lots over fifty pounds; less than fifty pounds the customer must prepay freight, or we will pay it and charge it up in bill of work. Don't ship wool by express, as we will not pay express rates, and you can not afford to pay them. Always be very careful to put your own name and post-office on every package of your wool, both inside and outside of the package, and you can not be too careful in writing your orders to us for what you want made of it. Order always by the number of the goods on the sample sheet. Don't order goods not on sample sheet, as we send samples of all we make every year, except blankets and yarns; then it is quite enough to say spin or make blankets, and name the kind or color. It would be best for customers ordering goods made to give a second choice, as we may sometimes be out of one kind of goods, and then we could send another much sooner.

We carry insurance for the benefit of our customers, but when we put their goods in the station our responsibility ends. We have not the pleasure of an acquaintance with all our customers, and we ship small bills of work collect on delivery to their nearest express office, unless otherwise ordered. We have greatly improved our mill this year, and we shall from time to time add new machinery to keep up with our work. Thanking our many friends and customers for their liberal patronage in the past, we hope to have many new ones this year.

Yours, very truly,

ALPINE WOOLEN MILLS,
M. J. HAWKINS,
Proprietor.

MOUNT AIRY, N. C., *March 1, 1900.*

COMPARISON OF MILLS BY SETS OF CARDS.

A well-developed trend away from the card wool manufacture has long been recognized, but it remained for the census of 1900 to present, in a succinct form, the facts that should give some indication of the extent of this change. The report on wool manufactures for the Eleventh Census called attention to the tendency toward larger establishments, and presented a table showing the number of mills reporting cards, arranged according to the number of cards operated. Table 7 is a comparative summary of these statistics for 1890 and 1900.

TABLE 7.—WOOL MANUFACTURES: NUMBER OF MILLS ACCORDING TO SETS OF CARDS: 1890 AND 1900.

GEOGRAPHICAL DIVISIONS.	Year.	Number reporting sets of cards.	1 set.	2 sets.	3 sets.	4 sets.	5 sets.	6 sets.	7 sets.	8 sets.	9 sets.	10 to 15 sets.	15 to 20 sets.	20 sets and over.	Carding mills.
United States	1900	976	139	119	76	81	46	51	34	40	22	69	31	37	231
	1890	1,468	347	221	131	107	66	80	36	58	22	106	44	57	193
New England states	1900	344	13	25	25	46	25	24	19	30	15	46	25	20	31
	1890	504	47	49	44	53	34	39	26	33	16	72	26	37	28
Middle states	1900	233	36	27	20	19	14	19	9	6	4	17	5	15	42
	1890	466	120	78	53	34	22	34	6	17	6	25	17	18	36
Southern states	1900	206	37	25	15	8	2	.....	2	.....	1	1	.....	2	113
	1890	197	57	38	10	8	2	.....	.....	1	.....	5	.....	1	75
Western states	1900	193	53	42	16	8	5	8	1	4	2	5	1	.....	45
	1890	301	123	56	24	12	8	7	4	7	.....	4	1	1	54

The comparison thus established brings to light some noteworthy facts. At the census of 1890, 1,468 mills reported sets of cards, of which 193 were carding mills. There were 568 mills with only 1 or 2 sets of cards; 238, with 3 and 4 sets; 146, with 5 and 6 sets; 222, with from 7 to 15 sets, 106 of these reporting 10 to 15 sets (the majority of this number, however, operated only 10 to 12 sets); and 101 mills with over 15 sets, of which 57 establishments had 20 sets of cards and over. At the census of 1900 only 976 establishments reported cards, of which 231 were carding mills; 258 were 1 and 2 set mills; 157, 3 and 4 set; 97, 5 and 6 set; 165, 7 to 15 set; and 68, 15 sets and over, 37 of these having 20 sets and over. From these statements it appears that the local 1 and 2 set mill is passing out of existence, following in the wake of the custom carding mill of earlier days. The 3 and 4 set mills were also largely reduced in number, the larger numerical loss being in the smaller mills. In the 5 and 6 set mills the reverse was the case, the greater loss both in number and percentage being in the 6 set establishments, which is perhaps accounted for by the fact that the 5 set mill presents better opportunities for economy in management.

The group of mills operating from 7 to 15 sets of cards is the one where the least change would naturally be expected, for it is well understood by woolen manufacturers that a 10 set mill, or one nearly approaching it, is in certain lines of manufacture the most economical of operation, as it requires no larger number of high-priced men, superintendents, second hands, etc., than a mill with only 5 or 6 sets. In the mills running from 7 to 9 sets there appears a reduction of only 20. In the remainder of this group, the mills having from 10 to 15 sets, and in the mills with 15 sets and over, the decrease has been very great—37 in the former and 33 in the latter. The principal causes of decrease are found in the failure of old and important establishments and the breaking up of their plants and the transfer of many large mills to the worsted branch. The substitution of knit garments for flannels has also been a factor of no small importance.

These changes have not been confined to any one section, but, as will be seen by the table, have occurred in much the same ratio throughout the country.

THE CARD WOOL MANUFACTURE.

The following statement shows the number of sets of cards in the woolen mills in the United States and in each state, arranged according to the width of main cylinder or swift. A similar statement showing the data for the hosiery and knit goods manufacture will be found under the proper head.

NUMBER AND WIDTH OF CARDS IN WOOL MANUFACTURES, BY STATES: 1900.

STATES.	Number of sets, width reported.	NUMBER OF CARDS OF EACH WIDTH REPORTED.												
		24 inches.	30 inches.	36 inches.	40 inches.	42 inches.	44 inches.	46 inches.	48 inches.	54 inches.	60 inches.	72 inches.	85 inches.	Miscellaneous.
United States	6,498	290	126	56	1,176	23	133	67	3,372	22	1,136	29	27	41
Alabama	8	7			1									
Arkansas	17	9	7											1
California	30								30					
Connecticut	450		1		94	6	23		291		27	4		4
Delaware	13								2		11			
Georgia	32	3	1			1			18		9			
Idaho	1								1					
Illinois	52	1	1	1	17				30		2			
Indiana	92	5	1		15		2		54		15			
Iowa	27	3			13				11					
Kansas	2								2					
Kentucky	58	25	3	1	2				9		17			1
Maine	437	18	5	6	129		14		225		35			5
Maryland	47	6							7		34			
Massachusetts	1,658	29	2	8	410	5	75	66	870		157	22	2	12
Michigan	52		3	2	10				36		1			
Minnesota	38	5	5		19				8					1
Mississippi	26	3		2					18		3			
Missouri	37	13	4	2	3				12		3			
New Hampshire	341	2			177	4	5	1	141	8	3			
New Jersey	208			1	2				115	11	54		25	
New York	748	39	21	6	124	2	4		511		34	3		4
North Carolina	32	14	2	2	4				6		4			
North Dakota	2										2			
Ohio	77	7	5		17		2		31		15			
Oregon	35	1	1	5	4				29					
Pennsylvania	1,149	62	12		26	2	1		441		593			7
Rhode Island	402				53				301	3	45			
South Carolina	1	1												
Tennessee	99	4	28	5	6	3			18		33			2
Texas	4										4			
Utah	17				1				16					
Vermont	124	8			15		7		78		16			
Virginia	53	1	10	7	10				13		9			3
West Virginia	57	13	7	8	12				12		4			1
Wisconsin	72	11	7		12				36		6			

Table 8 shows carding machinery, by states, 1870 to 1900.

The percentage of cards in the principal states remains but little changed in the ten years. The New England states, except Vermont and Maine, have each lost slightly, as compared with the total number of cards, but in no case does this loss exceed 1.3 per cent. New York, Pennsylvania, and New Jersey have each gained a trifle, but all the others show a relative loss. New England has maintained its superiority, having 3,427 sets, and of these Massachusetts had 1,594; the relative importance of this state in number of cards varies but very little from either 1880 or 1890. The same is true of the other leading states. New York, Pennsylvania, and New Jersey together had 2,217 sets. In the nine states mentioned were located most of the mills of 4 sets and over, and together they had 5,644 sets, leaving only 961 for the rest of the United States. Indiana, which in 1890 had 135 sets, in 1900 had 92. In Ohio the number was reduced from 104 to 78 and in Illinois from 57 to 46. Exclusive of the states named the number was practically unchanged. The general tables show gains in some of the remaining states and losses in others, which counterbalance each other, and were governed by local causes. As the wool-growing interest becomes relatively of less importance in the farming sections of the East and Middle West, and transportation facilities increase, the neighborhood mills established originally because of their contiguity to the source of supply gradually fall into disuse, overshadowed by the establishments of greater capacity, capital, and credit in the more eastern sections.

TABLE 8.—CARDING MACHINERY, BY STATES: 1870 TO 1900.

STATES.	1900		1890		1880		1870	
	Number of cards (sets).	Per cent of total.	Number of cards (sets).	Per cent of total.	Number of cards (sets).	Per cent of total.	Number of cards (sets).	Per cent of total.
United States	6,605	100.0	7,015	100.0	6,989	100.0	8,705	100.0
Massachusetts	424	29.2	265	31.5	190	36.9	172	65.9
Pennsylvania	357	24.6	188	22.4	121	23.5	29	11.1
New York	116	8.0	84	10.0	80	15.5	1	0.4
Rhode Island	287	19.8	193	23.0	70	13.6	7	2.7
Connecticut	57	3.9	27	3.2	21	4.1	34	13.0
New Hampshire	34	2.4	29	3.5	21	4.1	12	4.6
Maine	19	1.3	5	0.6	....	....	335	3.9
New Jersey	207	3.1	202	2.9	161	2.3	98	1.1
Vermont	124	1.9	120	1.7	145	2.1	177	2.0
Ohio	78	1.2	104	1.5	182	2.6	334	3.8
Indiana	92	1.4	135	1.9	160	2.3	346	4.0
Illinois	46	0.7	57	0.8	106	1.5	250	2.9
In above 12 states	5,860	88.7	6,216	88.6	5,955	85.2	6,868	78.9
All other states	745	11.3	799	11.4	1,034	14.8	1,837	21.1

THE WORSTED MANUFACTURE.

Reference has been made to the rapid transition from the carded to the combed wool manufacture. Previous to 1865 the products of the worsted industry were confined mainly to furniture stuffs and light goods for women's wear. Between that date and 1870 several establishments began the manufacture of cloths for men's wear,[1] and from that time dates the great worsted industry in the United States. Table 9 shows the number of combing machines, by states, 1870 to 1900, with the proportion each state had of the total.

[1] Eleventh Census of the United States, Manufactures, Vol. III, page 57.

TABLE 9.—NUMBER OF COMBING MACHINES, BY STATES: 1870 TO 1900.

STATES.	1900		1890		1880		1870	
	Number of combs.	Per cent of total.	Number of combs.	Per cent of total.	Number of combs.	Per cent of total.	Number of combs.	Per cent of total.
Total	1,451	100.0	839	100.0	515	100.0	261	100.0
Massachusetts	424	29.2	265	31.5	190	36.9	172	65.9
Pennsylvania	357	24.6	188	22.4	121	23.5	29	11.1
Rhode Island	287	19.8	193	23.0	70	13.6	7	2.7
New Jersey	128	8.8	29	3.5	9	1.7	6	2.3
New York	116	8.0	84	10.0	80	15.5	1	0.4
Connecticut	57	3.9	27	3.2	21	4.1	34	13.0
New Hampshire	34	2.4	29	3.5	21	4.1	12	4.6
Maine	19	1.3	5	0.6	.....	.....	.....	.....
In above 8 states	1,422	98.0	820	97.7	512	99.4	261	100.0
All other states	29	2.0	19	2.3	3	0.6	.....	.....

From a total of 261 combs reported in 1870 the industry has grown till, in 1900, 1,451 were employed, the increase being 97.3 per cent between 1870 and 1880, 62.9 per cent between 1880 and 1890, and 72.9 per cent between 1890 and 1900. Astonishing as the percentage statements are they do not furnish so clear an idea of

this phenomenal growth as do the actual figures. In 1870, 261 combs were employed; by 1880, 254 had been added, and by 1890, 324 more, making a total of 839. At the census of 1900 this number had increased by 612 combs during the decade, making the total 1,451, nearly $5\frac{2}{3}$ times the whole number employed in 1870. The substitution of the worsted cassimere and coating for the woolen cassimere, doeskin, broadcloth, and similar fabrics has been the prime cause of the decrease in the card-wool manufacture. In 1900 Massachusetts led in the worsted manufacture as at previous censuses, its gain in number of machines during the decade being 159. Pennsylvania, which ranked third in 1890, increased from 188 to 357, and held the second place. Rhode Island, which was second in 1890 with 193 machines, ranked third in 1900, although its total increased to 287. New Jersey was next with 128, having added 99 since 1890. New York added 32 machines and ranked fifth, with 116 combs. No other state approaches these 5 in magnitude in this industry. Connecticut, New Hampshire, and Maine together had 110 combs, an increase of 49 since 1890, when they reported 61. In all the other states the additions were only 10.

The preceding statements make it apparent that the states possessing the greatest amount of wool carding machinery also possessed the bulk of the combing machines. The following tabular statement shows the capacity of the principal manufacturing states in 1900 and 1890, on the assumption of the equality of $2\frac{1}{2}$ sets of cards to 1 comb in productive power:

PRODUCTIVE MACHINERY (CARDS AND COMBS) REDUCED TO THE CARD BASIS.

STATES.	DATE OF CENSUS.			
	1900		1890	
	Number of cards (sets).	Per cent of total.	Number of cards (sets).	Per cent of total.
United States	10,232	100.0	9,112	100.0
Massachusetts	2,654	25.9	2,448	26.9
Pennsylvania	2,154	21.1	1,724	18.9
Rhode Island	1,195	11.7	1,040	11.4
New York	1,038	10.1	912	10.0
Connecticut	602	5.9	599	6.6
New Jersey	527	5.2	274	3.0
Maine	484	4.7	399	4.4
New Hampshire	420	4.1	453	4.9
All other states	1,158	11.3	1,263	13.9

The table demonstrates the continued superiority of the 4 states, Massachusetts, Pennsylvania, Rhode Island, and New York, in the order named, in the wool manufacture. These 4 states together operated 67.2 per cent of the total productive machinery in 1890, and in 1900 operated 68.8 per cent.

SPINDLES.

According to the fiber employed or the yarn to be produced, the spindles employed in wool manufactures are divided into 3 groups—woolen, worsted, and cotton. The total number of spindles reported was 3,511,099, an increase of 717,952, or 25.7 per cent over 1890. Of the whole number, 2,031,028 were woolen spindles, 1,325,255 worsted spindles, and 154,816 cotton spindles. The following statement shows the distribution of the spindles in the mills in 1900 and 1890:

COMPARATIVE STATEMENT OF SPINDLES, 1890 AND 1900.

	WOOLEN.		WORSTED.		COTTON.	
	1900	1890	1900	1890	1900	1890
Woolen mills	1,789,683	1,742,288	65,762	19,750	51,136	53,342
Worsted mills	150,026	207,180	1,125,644	479,675	95,356	68,225
Carpet mills	67,033	53,046	133,849	151,132	8,324	4,680
Felt mills	24,286	13,829	.....	.....	.....	.....
Total	2,031,028	2,016,343	1,325,255	650,557	154,816	126,247

The statement shows a reduction in the number of woolen spindles in worsted mills, occasioned by the removal of many of them and the substitution of worsted spindles. In the woolen, the carpet, and the felt mills, the gain in number was more than sufficient to offset the losses in the worsted mills. The net gain in woolen spindles was 14,685. The average number of woolen spindles to the card in 1890 was 287. In 1900 the average number to the card was 307. In worsted spindles the number more than doubled. This increase was not confined to the worsted mills, for the woolen mills also added materially to their capacity for the manufacture of worsted yarns. In the worsted mills the increase has been 645,969 spindles, or 134.7 per cent, and the total increase of worsted spindles is 674,698, or 103.7 per cent. Improvements in quality of goods, requiring higher counts of yarn, have made necessary a proportionately larger number of spindles.

In 1890 the average number of worsted spindles to a comb was 775; in 1900 it was 913. The difference may be, in some measure, accounted for by the increased efficiency of the comb, the result of improvements. In cotton spindles there has also been an increase over the number in 1890 of 28,569 spindles, or 22.6 per cent. The increase was mostly in the worsted mills, where a large quantity of cotton yarn was produced for use in cotton-warp dress goods.

DOUBLING SPINDLES.

For the first time in the census reports the separation of spindles into spinning and doubling spindles has been attempted. In 1890 an estimate of the number of doubling spindles, based upon the proportion existing in Great Britain, was made. It was supposed that the relative proportion would be about the same here as there. No later statistics of spindles in Great Britain are available than those of 1889, when the woolen mills had 3,107,209 spinning spindles and 299,793 doubling spindles, and the worsted mills, 2,402,922 spinning and 669,328 doubling spindles. The spindle capacity of the

United States ten years ago was less than one-half that of Great Britain.

In woolen spindles the United States has made some advance during the decade, but is at least as far behind Great Britain now as in 1890. It also appears that a much larger proportion of single yarns is used here, for while the spindles of British manufacturers were then in the ratio of 1 doubling to 10.36 spinning; the number in the United States now averages 1 to 22.46, which is less than one-half of the proportion in the British mills.

In worsted spindles the proportion in Great Britain in 1889 accords fairly well with the present census returns. The ratio then was 1 doubling to 3.59 spinning spindles, while the mills of the United States now report 351,550 doubling spindles, and 994,889 spinning spindles, a ratio of 1 to 2.83.

PRODUCTIVE CAPACITY.

It had been hoped that it would be possible to fix upon some standard of capacity in the wool manufacture that would compare favorably with the spindle, which is used as the measure in the cotton manufacture. The card has been used as the standard heretofore, but owing to variations in size and in productive power dependent on the quality of stock and the number or size of the yarn, it is very unsatisfactory. Cards range from 24 inches to 72 inches in width, with occasionally one of even greater width, and vary almost as greatly in diameter. The spindle, both woolen and worsted, mule or ring, is unsatisfactory also, for its product is dependent on the number of yarn and quality of stock and whether it is for warp or weft, warp requiring a much harder twist than weft. The letter below indicates the difficulty involved, as well as the apparent impossibility of arriving at a suitable standard of measurement of productive capacity.[1]

IDLE CAPITAL AND MACHINERY.

Until the Eleventh Census no attempt was made to separate the idle from the active machinery in the wool manufacture. Previously, idle establishments were reported with those in active operation. In 1890, 267 factories, with 612 sets of cards and 35 combs, were not in operation during the census year. The number of idle sets of cards was equal to 6.9 per cent of the total number of cards reported both in operation and idle. The number of idle combs equaled 3.9 per cent of the total number. Table 10 shows the idle capital and machinery for 1900.

[1] There has been a considerable increase in the productive capacity of carding machines aside from that obtained by the increased surface of the more modern cards. Among the various factors which contribute to this, we mention the substitution of tempered steel wire clothing for iron, the use of double apron condensers in place of roll rubs, the improvements in automatic feeds, and also to a certain degree in the larger number of ends, thereby keeping the carding machines up to the full amount of stock which the wire will carry without overloading, and keeping the speed of the ring doffers within reasonable limits.

The improved methods of construction of modern cards also admit of uniform setting, and also very considerably reduce the stoppage of the machines for repairs, etc.

There has been a very considerable increase in the size of carding machines within the last twenty years. Where formerly many of them were built 40 inches wide, 42 inches diameter, now it is a very rare thing to build a card smaller than 48 inches wide by 48 inches diameter, and a large percentage of them are built with the main cylinders 60 inches in diameter and 48 inches wide, while quite a few are built 60 inches wide by 48 inches diameter, and some few of them 60 inches wide by 60 inches diameter.

We are unable to give you the information you desire in regard to basis upon which to estimate the production of mills from the number of spindles. We should like very much to obtain this information ourselves, but it seems very difficult, if not impossible, to get an accurate basis upon which to estimate.

DAVIS & FURBER MACHINE COMPANY.

NORTH ANDOVER, MASS., *January 28, 1902.*

TABLE 10.—IDLE CAPITAL AND MACHINERY, BY STATES: 1900.

STATES	Number of establishments.	CAPITAL.					MACHINERY.		
		Total.	Land.	Buildings.	Machinery, tools, and implements.	Cash and sundries.	Sets of cards.	Combing machines.	Spindles.	Looms.
Total	117	$4,632,666	$668,542	$1,347,698	$1,791,207	$825,219	338	28	111,889	3,129
Connecticut	4	49,800	6,300	23,000	20,500	.....	12	.....	1,400	81
Illinois	4	44,850	6,350	12,800	25,700	.....	15	.....	6,520	241
Indiana	6	123,650	19,150	44,800	54,000	5,700	17	.....	6,198	83
Iowa	3	16,500	900	4,700	9,000	1,900	6	3	1,804	20
Kentucky	6	1,095,060	119,140	230,100	362,462	383,358	39	11	20,598	838
Maine	5	245,600	20,600	69,000	126,000	30,000	9	5	2,500	161
Massachusetts	18	1,474,800	229,532	494,683	552,121	198,464	90	.....	28,734	909
Michigan	3	8,400	1,450	2,100	2,000	2,850	4	.....	1,340	8
New Hampshire	4	303,350	67,000	83,000	100,734	52,616	38	.....	11,080	209
New Jersey	3	87,539	10,000	23,246	43,887	10,406	.....	.....	.....	72
New York	8	166,775	19,200	38,800	74,300	34,475	22	.....	4,410	47
Ohio	6	33,300	9,500	8,500	13,000	2,300	7	.....	1,010	29
Pennsylvania	20	255,100	19,480	67,580	91,400	76,640	6	.....	2,044	21
Rhode Island	6	524,600	116,500	180,000	228,100	.....	46	9	18,012	256
Tennessee	3	3,725	210	1,115	2,300	100	4	.....	560	13
Vermont	3	13,370	3,500	4,000	4,000	1,870	3	.....	680	9
All other states[1]	15	186,247	19,730	60,274	81,703	24,540	20	.....	4,999	132

[1] Includes establishments distributed as follows: Arkansas, 2; Kansas, 1; Maryland, 1; Missouri, 1; Nebraska, 1; South Carolina, 1; Texas, 1; Utah, 1; Virginia, 1; Washington, 1; West Virginia, 2; Wisconsin, 2.

The returns for 1900 show 338 sets of cards and 28 combs idle, equal to 5.1 per cent of the total number of cards and 1.9 per cent of the total number of combs. The idle spindles equaled in 1890, 5.1 per cent, and in 1900, 3.2 per cent of the total number. The idle looms were 4.1 per cent of the total looms in 1890 and 4.2 per cent in 1900. While these percentages indicate that the machinery in the wool manufacture was more fully employed in 1900 than in 1890, it must not be overlooked that they relate only to mills that were idle during the whole of the census year. The reports of the active mills indicate a large amount of lost time.

The capital of the idle mills was reported as $4,632,666, of which $825,219 was in cash, unsettled accounts, etc., designated as live capital. The value of the plants was $3,807,447. The average fixed capital per establishment was $32,542.

The idle mills were located as follows: 40 in New England, 32 in the Middle states, 16 in the South, and 29 in the Western and Pacific states. Of the 40 in New England, 18 were in Massachusetts, with 90 sets of cards and a total capital of $1,095,060; 6 were in Rhode Island and had 46 sets of cards and 9 combs, with a capital of $524,600; 4 were in Connecticut; 4 were in New Hampshire; and 3 in Vermont. The 11 mills last named reported a total capital of $366,520, with 53 sets of cards. In the Middle states, Pennsylvania had the greatest number of idle plants, 20, with only 6 sets of cards, and a capital of $255,100. New York was next with 8 establishments, having 20 sets of cards, and a capital of $166,775. New Jersey had 3, with capital amounting to $87,539, but no preparatory machinery. In the Southern and Western groups, Kentucky had the largest amount of capital in idle mills. The states named possessed the greater part of the idle machinery, having 256 sets of cards and 20 combs, leaving only 82 sets of cards and 8 combs for all the others.

POWER.

The power, both steam and water, employed in the wool manufacture, increased 71,898 horsepower, or 35.5 per cent, during the decade ending in 1900. In the preceding decade the actual increase was 62,306 horsepower, about seven-eighths as much, although the percentage was 44.5. The carded wool manufacture shows an increase of 17,421 horsepower, or 14.3 per cent. The worsted manufacture in this, as in other particulars, shows the greatest increase, 48,266 horsepower, or 98.3 per cent. In 1890 this branch of the industry increased 32,680 horsepower, or 198.8 per cent over 1880. The horsepower in the carpet manufacture increased 18.8 per cent in 1900, and in the felt mills 57.8 per cent, while in the wool hat manufacture there was a decrease of 966 horsepower, or 29.3 per cent.

A more significant fact than the increase of the total horsepower employed is the increased efficiency of machinery which is indicated in the column of "Horsepower per wage-earner" in Table 11. In 1880, 131.2 horsepower, and in 1900, 172.4 horsepower per 100 operatives were required. The improvements in cards, combs, looms, and other machinery were such that less superintendence was needed and the operative could give his attention to more machines. The table following presents a statement of horsepower, wage-earners, and horsepower per wage-earner for the censuses of 1880, 1890, and 1900 for the wool industry in its various branches.

TABLE 11.—POWER AND LABOR: 1880 TO 1900.

INDUSTRIES.	Year.	Total horsepower.	Average number of wage-earners.	Horsepower per wage-earner.
Total	1900	274,262	159,108	1.72
	1890	202,364	154,271	1.31
	1880	140,058	131,059	1.07
Woolen goods	1900	139,645	68,893	2.03
	1890	122,224	76,915	1.59
	1880	106,507	85,202	1.25
Worsted goods	1900	97,383	57,008	1.71
	1890	49,117	42,978	1.14
	1880	16,437	18,639	0.88
Carpets and rugs, other than rag	1900	26,932	28,411	0.95
	1890	22,677	28,736	0.79
	1880	10,491	20,299	0.52
Felt goods	1900	7,973	2,688	2.97
	1890	5,051	2,142	2.36
	1880	2,631	1,488	1.77
Wool hats	1900	2,329	2,108	1.11
	1890	3,295	3,500	0.94
	1880	3,992	5,431	0.74

DEPRECIATION OF PLANT.

No attempt was made at the census of 1900 to ascertain what allowances were made for depreciation of plant. In the thoroughly up-to-date establishment every improvement in machinery is adopted as soon as its value is demonstrated. Existing machinery, even though comparatively new, is at once discarded if increased production can be secured without a proportionate increase of cost by the substitution of the latest improved machines. The question with the manufacturer is not so much the cost, as whether the change will bring an increase of income sufficient to pay the interest on the cost, with an added margin for profit, and put the establishment in better condition to meet business competition. It is commonly agreed that an allowance of 10 per cent of the first cost of machinery is a fair annual allowance for wear and tear and supersession by im-

provements, and that at least this amount should be set aside for depreciation. A smaller allowance is sufficient for buildings, but, nevertheless, improved processes of manufacture frequently compel the tearing down of old buildings and the erection of new ones in their place, so that an allowance of 5 per cent is not too much for depreciation of buildings. It is true that in many establishments but little has been laid out for years on alteration or repairs, only a sufficient amount to keep the mill going being expended, and in many mills there are cards and looms that have been in operation for so long that they are almost relics of a by-gone age. Although such machines may answer the purpose of their owners fairly well, they fall far behind more modern machines in their productive capacity and economy of operation.

CAPITAL.

The increase in capital employed during the decade 1890–1900, as shown by the reports, was $64,293,006, or 26.1 per cent. The total capital is divided into fixed and live capital, the land, buildings, and machinery, etc., being regarded as "fixed" and the items of cash, unsettled ledger accounts, etc., as "live" capital. The following statement shows the statistics of capital for 1890 and 1900:

	CAPITAL.		Per cent of increase.
	1900	1890	
Aggregate	$310,179,749	$245,886,743	26.1
Total fixed capital	125,226,619	106,146,810	18.0
Land	17,936,483	12,682,857	41.4
Buildings	38,074,295	33,950,456	12.1
Machinery, tools, and implements	69,215,841	59,513,497	16.3
Cash on hand, unsettled ledger accounts, stock on hand, etc	184,953,130	139,739,933	32.4

The live capital reported shows an increase of 32.4 per cent and bears no fixed relation to the value or quantity of product. In 1890 it was a little more than half, and in 1900 it represented a sum equal to over 62 per cent of the total value of products. It has been generally understood in the wool manufacture that the active capital should be turned twice in the year, but in this case the tables show a falling off from this standard.

WAGE-EARNERS AND WAGES.

The total number of wage-earners employed in the wool manufacture has increased 4,837 over 1890. Of this increase 4,821 were men and 819 were children. The number of women employed decreased 803. The relative proportion of each at the last three censuses is shown in the following statement:

AVERAGE NUMBER OF WAGE-EARNERS, AND PROPORTION OF MEN, WOMEN, AND CHILDREN: 1880 TO 1900.

	Year.	Average number.	Per cent of total.
Total	1900	159,108	100.0
	1890	154,271	100.0
	1880	131,059	100.0
Men, 16 years and over	1900	83,371	52.4
	1890	78,550	50.9
	1880	66,347	50.6
Women, 16 years and over	1900	64,141	40.3
	1890	64,944	42.1
	1880	49,104	37.5
Children, under 16 years	1900	11,596	7.3
	1890	10,777	7.0
	1880	15,608	11.9

The proportions have changed very slightly in the decade, the percentage of men being 50.9 in 1890 and 52.4 in 1900; of women, 42.1 and 40.3; and of children, 7 and 7.3.

The total amount paid in wages in 1900 was $57,933,817, divided as follows: To men, $36,412,872; to women, $19,549,423; to children, $1,971,522. In 1890 the total amount was $54,339,775, of which $33,702,231 was paid to men, $18,883,174 to women, and $1,754,370 to children. No attempt is made to analyze these wages or to ascertain the average earnings, because of the different methods of reporting the average number of employees pursued at the two censuses. The full details of wages and earnings in the wool manufacture will be shown in the special report on wages to be published by the Census Office at a later date.

CONDITIONS OF WAGE-EARNERS.

Within the memory of many men now living the conditions under which the work of the operatives is carried on have undergone a great change. In the early fifties it was the custom to work from sun to sun, and oftentimes for even longer hours. When daylight failed, the only light available was that furnished by little whale-oil lamps. The buildings were generally small, low-studded, ill ventilated, and poorly lighted. The operatives lived in factory boarding houses or in tenements owned by the mill proprietors, taking a part of their pay in board or rent. The evolution from these conditions has been slow but continuous. Mills of recent construction contain every modern appliance for facilitating production, such as cards, combs, mules, spinning frames, looms, and other machinery of the highest type, with their various stop motions and other automatic devices for the prevention of imperfections.

The rooms are large, lofty, well ventilated and lighted, and heated by steam. Electric lights make good the absence of daylight when required. The hours of labor have been reduced to 60 per week, and in several instances to a smaller number. Wages are generally paid in cash, usually either every week or once in two weeks, and factory inspection laws prevent, to a great extent, the employment of children under 14 years of age, and insure the best sanitary conditions.

MATERIALS USED IN THE WOOL MANUFACTURE.

Table 12 is a summary of the kind, quantity, and cost of materials used in the various branches of the wool manufacture in 1900.

TABLE 12.—KIND, QUANTITY, AND COST OF MATERIALS USED: 1900.

CLASSES.	Total.	Woolen mills.	Worsted goods mills.	Carpet and rug mills, other than rag.	Felt goods mills.	Wool hat mills.
Total cost	$181,159,127	$71,011,956	$77,075,222	$27,228,719	$3,801,028	$2,042,202
Wool, foreign and domestic, in condition purchased:						
Pounds	394,369,523	150,200,616	179,977,936	51,871,334	9,606,263	2,713,374
Cost	$89,893,350	$34,497,689	$44,306,141	$8,104,107	$2,196,440	$788,973
Raw cotton:						
Pounds	43,414,502	34,967,959	5,276,751	1,943,942	1,225,850	.....
Cost	$3,487,132	$2,755,485	$524,515	$129,449	$77,683	.....
Mohair:						
Pounds	3,048,146	1,117,179	1,905,967	25,000	.....	.....
Cost	$1,439,288	$459,831	$972,207	$7,250	.....	.....
Cotton yarn, not made in mill:						
Pounds	55,217,994	21,922,136	13,420,590	19,823,561	51,707	.....
Cost	$9,568,861	$3,782,240	$3,032,039	$2,744,928	$9,657	.....
Linen yarn, not made in mill:						
Pounds	8,415,275	7,845	1,314	8,388,211	17,905	.....
Cost	$1,178,414	$6,998	$1,052	$1,164,826	$5,538	.....
Silk yarn, not made in mill:						
Pounds	70,073	34,007	26,418	9,634	14	.....
Cost	$334,001	$145,514	$144,971	$43,455	$61	.....
Yarn of jute, ramie, or other vegetable fiber, not made in mill:						
Pounds	39,965,180	1,118,767	.....	38,846,413	.....	.....
Cost	$2,533,413	$57,384	.....	$2,476,029	.....	.....
Shoddy, purchased and made:						
Pounds	71,496,508	66,855,105	1,807,827	869,233	1,961,208	3,135
Cost	$7,069,630	$6,584,855	$303,644	$49,680	$130,835	$616
All other materials, cost	$65,655,035	$22,721,960	$27,790,653	$12,508,995	$1,380,814	$1,252,613
Total pounds, wool, cotton, and shoddy	564,498,527	273,945,816	200,483,104	74,508,070	12,845,028	2,716,509
Per cent of total	100.0	100.0	100.0	100.0	100.0	100.0
Total pounds of wool used	394,369,523	150,200,616	179,977,936	51,871,334	9,606,263	2,713,374
Per cent of total	69.8	54.8	89.8	69.6	74.8	99.9
Total pounds of cotton and cotton yarn used	98,632,496	56,890,095	18,697,341	21,767,503	1,277,557	.....
Per cent of total	17.5	20.8	9.3	29.2	9.9	.....
Total pounds of shoddy used	71,496,508	66,855,105	1,807,827	869,233	1,961,208	3,135
Per cent of total	12.7	24.4	0.9	1.2	15.3	0.1

The consumption of wool in 1900 in the wool manufacture was 394,369,523 pounds, of which 257,934,562 pounds was of domestic production, and 136,434,961 pounds of foreign growth.

The quantity of new wool used in the wool manufacture has increased 12.3 per cent since 1890; the quantity of shoddy used has increased 25.8 per cent. The increase in the consumption of wool wastes and noils is 18.2 per cent, and of all other hair and animal fiber, including camel's hair and mohair, 33.7 per cent. The quantity of raw cotton used has increased 25.5 per cent. The total quantity of raw fiber consumed has increased 15.5 per cent, while the value of products has increased only 9.8 per cent.

NET WOOL SUPPLY, FOREIGN AND DOMESTIC.

The following statement shows the net supply of wool for the twenty years beginning with 1881, with the percentage of supply to imports. These figures are compiled from the reports of the Bureau of Statistics of the Treasury Department.

WOOL PRODUCED AND IMPORTED, DOMESTIC EXPORTS AND ANNUAL SUPPLY OF THE UNITED STATES, 1881 TO 1900 INCLUSIVE.

Years.	Domestic production (Department of Agriculture), pounds.	Imports entered for consumption year ending June 30, pounds.	Total production and imports, pounds.	Domestic exports year ending June 30, pounds.	Net supply, pounds.	Per cent of imports to supply.
1881.....	240,000,000	67,416,967	307,416,967	71,455	307,345,512	21.9
1882.....	272,000,000	63,016,769	335,016,769	116,179	334,900,590	18.8
1883.....	290,000,000	53,049,967	343,049,967	64,474	342,985,493	15.5
1884.....	300,000,000	87,703,931	387,703,931	10,393	387,693,538	22.6
1885.....	308,000,000	68,146,652	376,146,652	88,006	376,058,646	18.1
1886.....	302,000,000	107,910,549	409,910,549	147,023	409,763,526	26.3
1887.....	285,000,000	114,404,173	399,404,173	257,940	399,146,233	28.7
1888.....	269,000,000	97,231,267	366,231,267	22,164	366,209,103	26.6
1889.....	265,000,000	126,181,273	391,181,273	141,576	391,039,697	32.3
1890.....	276,000,000	109,902,105	385,902,105	231,042	385,671,063	28.5
1891.....	285,000,000	119,390,280	404,390,280	291,922	404,098,358	29.5
1892.....	294,000,000	134,622,366	428,622,366	202,456	428,419,910	31.4
1893.....	303,153,000	175,636,042	478,789,042	91,858	478,697,184	36.7
1894.....	298,057,384	45,726,056	343,783,440	520,247	343,263,193	13.3
1895.....	309,748,000	265,726,348	575,474,348	4,279,109	571,195,239	46.5
1896.....	[1]272,474,708	228,647,543	501,122,251	6,945,981	494,176,270	46.3
1897.....	[1]259,153,251	350,250,028	609,403,279	5,271,535	604,131,744	58.0
1898.....	[1]266,720,684	70,334,897	337,055,581	121,139	336,934,442	20.9
1899.....	[1]272,191,330	77,388,192	349,579,522	1,683,419	347,896,103	22.2
1900.....	[2]309,991,812	128,250,945	438,242,757	2,209,309	436,012,448	29.4

[1] Estimate of the National Association of Wool Manufacturers
[2] Census of 1900.

The total quantity of imported wool entered for consumption during the ten years 1881–1890 was 894,963,653 pounds. The quantity of wool grown in the United States in the same period was 2,807,000,000 pounds, and deducting the exports of domestic wool, the total net supply was 3,700,813,401 pounds. The annual average net supply was 370,081,340 pounds. The quantity of foreign wool reported at the Eleventh Census as consumed was 114,116,612 pounds, and the total of domestic wool so reported was 258,680,801 pounds, making the total quantity consumed 372,797,413 pounds, which is 2,716,012 pounds in excess of the annual net supply. The total amount used in the year 1890 coincided closely with the average of the ten years, as above given, but the quantity of foreign wool used was greater than the average importation, and the quantity of domestic less than the average production.

In the ten years 1891–1900 the foreign wool entered for consumption amounted to 1,595,972,697 pounds, and the domestic growth for the same time was 2,870,490,169. The total net supply was 4,444,854,891 pounds, one-tenth of which was 444,485,489 pounds, the annual average net supply, which consisted of 159,597,270 pounds of foreign and 284,888,219 pounds of domestic wool.

The home production of wool in 1900 was 71.1 per per cent of the net supply, but as 98,970,344 pounds of the foreign imports were of wools used mostly in the carpet manufacture, the domestic wool growers furnished a much larger proportion of the wool needed for clothing the people of the United States than the percentage indicates.

The growth of any year or the imports entered for consumption are not necessarily consumed in the same year. But in a series of years the supply and consumption will nearly balance each other. There are no means of ascertaining the quantity of wool consumed in the years between the census years. It may or may not equal the consumption of the year of the census but the close correspondence in both periods between the average net supply and the consumption reported corroborate both the census figures and the clip estimates.

DOMESTIC WOOL.

The records show great variations in the annual production of domestic wool. In 1890 the quantity reported by the Department of Agriculture was 276,000,000 pounds. This quantity increased yearly, until in 1895 the product was 309,748,000 pounds. The next three years showed a steady decline, until in 1897 the bottom was reached with a production reduced to 259,153,251 pounds. This is the smallest amount in any one year since 1881, when the United States Department of Agriculture reported the product at 240,000,000 pounds. The census reports for 1900 show a product for the census year of 276,991,812 pounds of fleece wool, to which must be added 33,000,000 pounds, estimated as the quantity of pulled wool produced, making a total of 309,991,812 pounds of wool. No previous census has taken account of the Angora goats in the United States. It appears from the returns of the census for 1900, as tabulated under the direction of Mr. L. G. Powers, Chief Statistician for Agriculture, that in 1900 there were 454,932 fleece-bearing goats, which furnished 961,328 pounds of hair, valued at $267,864, an average of nearly 28 cents per pound. Adding this hair to the wool product, the domestic product of wool and hair for the census year, as ascertained at the census of 1900, was 310,953,140 pounds.

IMPORTS OF FOREIGN WOOL, 1822 TO 1900.

The following table shows the quantity and value of imported wool entered for consumption from 1822 to 1900, inclusive, by periods of five and ten years. It shows also the increase in quantity for each of these periods and the percentage of the increase:

IMPORTS OF FOREIGN WOOL: 1822 TO 1900.[1]

YEARS.	Quantity (fiscal year) (pounds).	Value.	Quantity (5-year periods) (pounds).	Value.	Quantity (10-year periods) (pounds).	Value.	INCREASE IN QUANTITY AND IN PER CENT (POUNDS). 5 years.	INCREASE IN QUANTITY AND IN PER CENT (POUNDS). 10 years.
1822	1,715,690	$387,312						
1823	1,673,348	340,956	6,736,205	$1,633,704				
1824	1,291,400	353,367						
1825	2,055,767	552,069						
1826	2,622,909	446,768						
1827	3,180,767	379,841						
1828	2,437,018	488,831	10,200,102	1,612,260	16,936,307	$3,245,964	3,463,897	
1829	1,295,767	204,648					51.42 per cent.	
1830	663,641	92,172						
1831	5,619,353	1,287,540						
1832	2,814,879	501,502						
1833	273,631	93,957	15,904,169	2,955,115			5,704,067	
1834[2]							55.92 per cent.	
1835	7,196,306	1,072,116						
1836	12,296,249	1,203,937						
1837	10,259,687	806,544						
1838	6,785,704	509,283	46,961,106	4,001,900	62,865,275	6,957,015	31,056,937	45,928,968
1839	7,806,254	662,306					195.28 per cent.	271.19 per cent.
1840	9,813,212	819,830						
1841	14,862,984	1,047,507						
1842[3]	10,849,773	716,768						
1843	3,497,447	228,106	67,113,232	4,548,590			20,152,126	
1844	14,077,956	872,143					42.91 per cent.	
1845	23,825,072	1,684,066						
1846	16,504,879	1,112,978						
1847	8,249,207	524,874						
1848	11,379,483	862,675	72,651,360	5,361,468	139,764,592	9,910,058	5,538,128	76,899,317
1849	17,822,497	1,170,561					8.25 per cent.	122.32 per cent.
1850	18,695,294	1,690,380						
1851	32,578,193	3,836,613						
1852	17,992,646	1,876,536						
1853	21,403,925	2,625,761	110,198,202	13,165,013			37,546,842	
1854	20,033,492	2,792,558					51.68 per cent.	
1855	18,189,946	2,033,545						
1856	16,729,377	2,172,477						
1857	18,460,227	2,612,704						
1858	25,562,478	3,523,536	119,908,085	18,690,041	230,106,287	31,855,054	9,709,883	90,341,695
1859	33,030,112	[4]5,084,562					8.81 per cent.	64.64 per cent.
1860	26,125,891	5,296,762						
1861	31,638,533	5,015,002						
1862	43,698,138	7,140,114						
1863	74,412,878	12,528,606	284,517,282	48,466,353			164,609,197	
1864	91,026,639	16,128,209					137.28 per cent.	
1865	43,741,094	7,654,422						
1866	70,435,943	10,682,257						
1867	37,683,675	5,779,511						
1868	24,582,551	3,955,671	206,032,175	31,098,856	490,549,457	79,565,209	78,485,107	260,443,170
1869	34,695,939	5,251,094					[4]27.59 per cent.	113.18 per cent.
1870	38,634,067	5,430,323						
1871	50,174,056	7,704,674						
1872	94,315,933	19,571,559						
1873	84,212,582	20,466,166	337,182,602	69,582,888			131,150,427	
1874	56,793,737	11,611,867					63.66 per cent.	
1875	51,686,294	10,228,622						
1876	40,275,678	7,887,616						
1877	40,114,394	7,012,972						
1878	39,801,161	6,995,367	259,666,315	45,326,434	596,848,917	114,909,322	77,516,287	106,299,460
1879	40,102,642	5,516,813					[4]22.99 per cent.	21.67 per cent.
1880	99,372,440	17,913,666						
1881	67,416,967	12,060,827						
1882	63,016,769	10,333,359						
1883	53,049,967	8,491,988	339,334,286	53,953,737			79,667,971	
1884	87,703,931	13,593,299					30.68 per cent.	
1885	68,146,652	9,474,264						
1886	107,910,549	13,794,213						
1887	114,404,173	16,351,370						
1888	97,231,267	14,062,100	555,629,367	77,805,485	894,963,653	131,759,222	216,295,081	298,114,736
1889	126,181,273	17,432,759					63.74 per cent.	49.95 per cent.
1890	109,902,105	16,165,043						
1891	119,390,280	17,070,183						
1892	134,622,366	17,697,068						
1893	175,636,042	18,403,689	741,101,092	90,986,877			185,471,725	
1894	45,726,056	5,191,806					33.38 per cent.	
1895	265,726,348	32,624,131						
1896	228,647,543	32,144,454						
1897	350,250,028	53,219,397						
1898	70,334,897	8,714,526	854,871,605	117,477,836	1,595,972,697	208,464,713	113,770,513	701,009,044
1899	77,388,192	8,363,239					15.35 per cent.	78.34 per cent.
1900	128,250,945	15,036,220						

[1] The quantities and values given are for net imports, 1822 to 1866, inclusive, and imports entered for consumption from 1867 to 1900, inclusive.
[2] In 1834 the exports of foreign wool exceeded the imports.
[3] To and including the year 1842, the fiscal year ended September 30; after that date June 30.
[4] Decrease.

The greatest percentage of increase occurred in the five-year period ending in 1840, 195.28 per cent, the next was that ending in 1865. That ending in 1870 showed a decrease of 27.59 per cent. The greatest actual increase was in the period ending in 1890, the increase being 216,295,081 pounds, although the percentage of increase was only 63.74. The next largest periods were those ending in 1875 and 1895. In the decades the greatest percentage of increase was in that ending in 1840, 271.19 per cent, and was followed by those ending in 1850, 1870, 1900, 1860, 1890, 1880, in the order named. The actual increase varies very greatly from the above order. The greatest increase in the decades was in the last, 1891–1900, 700,009,044 pounds, 78.34 per cent. Then come the decades ending in 1890, 1870, 1880, 1860, 1850, in the order named, and last 1840, with an increase of 271.19 per cent, but an actual increase of only 45,928,968 pounds.

THE FOREIGN SOURCES OF WOOL SUPPLIES.

The three following tables show the countries of origin of the wools imported into the United States during the years ending June 30, 1890, and June 30, 1900. They are divided according to the tariff division of imported wool into classes, and indicate in a striking manner the changes which have occurred during the decade in the sources from which wool imports are drawn. As the bulk of imported wools are of Class III, they are placed first. These wools were used principally in carpet manufacture.

IMPORTS OF CLASS III WOOLS, BY COUNTRIES OF PRODUCTION: 1890–1900.

	1890	1900
	Pounds.	*Pounds.*
Total	80,152,484	105,742,030
Australasia	21,237	311,337
Europe	30,858,372	30,206,506
Austria-Hungary	11,977	920,562
Belgium	.....	37,257
Denmark	.....	137,141
England	5,193,817	2,234,475
Ireland	.....	35,860
Scotland	5,141,822	10,025,197
France	2,198,996	330,254
Germany	718,572	1,986,837
Greece	.....	21,722
Greenland, Iceland, etc	64,104	502,736
Italy	444	57,892
Portugal	339,956	183,891
Russia—Baltic and White seas	3,397,982	6,013,756
Russia—Black Sea	10,594,887	5,725,764
Russia—all other	1,362,293	1,038,198
Servia	28,381	383,473
Spain	32,837	54,935
Sweden	.....	146
Switzerland	35,685	61,315
Turkey in Europe	1,733,619	455,092
All other countries	.....	.....
South America	15,427,402	10,615,231
Argentina	13,531,096	8,951,184
Brazil	175,697	254,705
Chile	1,634,953	864,047
Ecuador	1,087	.....
Uruguay	84,569	522,087
Venezuela	.....	23,208
Asia	33,378,502	64,257,659
Aden	.....	7,002
China	8,704,983	30,984,902
India	7,931,474	9,396,249
Japan	.....	27,100
Russia—Asiatic	204,339	6,041,346
Turkey in Asia	12,568,375	7,853,411
All other countries	3,969,331	9,947,649

IMPORTS OF CLASS III WOOLS, BY COUNTRIES OF PRODUCTION: 1890–1900—Continued.

	1890	1900
	Pounds.	*Pounds.*
Africa	154,826	336,048
British Africa	.....	62,925
Turkey in Africa	154,826	95,027
All other countries	.....	178,096
West Indies	48,134	14,877
British	32,793	60
Danish	357	.....
Dutch	14,984	14,817
All other countries not specified	264,011	372

The total imports of these wools were 80,152,484 pounds in 1890, and 105,742,030 pounds in 1900, an increase of 25,589,546 pounds. Argentina, which for a long time has been one of the chief sources of supply, sent 4,579,912 pounds less in 1900 than in 1890; England and Scotland sent about the same quantity in both years, as also did Russia in Europe; but Asiatic Russia increased its shipments 5,837,007 pounds. Turkey in Europe sent 1,278,527 pounds less than before, Turkey in Asia 4,714,964 pounds less, and India 1,464,775 pounds more. The quota of France was reduced by 1,868,742 pounds, and Germany increased its quota by 1,268,265 pounds. The great difference, however, appears in the importations from China. In 1890 there were received from that empire 8,704,983 pounds; in 1900, 30,984,902 pounds; the increase being 22,279,919 pounds, a quantity nearly equal to the total increase as shown by the table. The China wools have been steadily growing in favor with carpet manufacturers.

CLASS I WOOLS.

The wools of Class I come most directly into competition with the wools of domestic production. For many years American importations of such wools have been mostly of Australian growth. In recent years, however, large quantities have come from the Argentine Republic. The Argentine sheep farmers, to meet the demand for mutton sheep for food purposes, crossed their Merinos with sheep of English blood and incidentally produced a cross-bred wool comparing favorably with the admirable cross-bred territorial wools of the United States. In 1890, 168,355 pounds of these wools were brought into the United States, but in 1900 the quantity had increased to 11,113,095 pounds.

During the decade the sheep of Australasia have suffered severely from frequent and long-continued droughts, resulting in a reduction of the flocks from 124,983,100 in 1892 to 93,196,483 in 1901, with a corresponding reduction in the product. The imports of these wools into the United States increased from 11,928,921 pounds in 1890 to 22,684,590 pounds in 1900. The importations of Class I wools for 1890 were 15,492,107 pounds, and in 1900, 37,036,621 pounds.

IMPORTS OF CLASS I WOOLS, BY COUNTRIES OF PRODUCTION: 1890–1900.

	1890	1900
	Pounds.	*Pounds.*
Total	15,492,107	37,036,621
Australasia	11,928,921	22,684,590
Europe	1,271,510	420,790
England	884,807	224,010
Ireland	.....	68,251
Scotland	509	.....
France	262,333	63,027
Germany	7,199	18,627
Iceland	.....	157
Italy	.....	100
Netherlands	.....	34,788
Russia—Baltic and White seas	334	10,514
Spain	91,460	816
Turkey in Europe	24,868	500
All other countries	.....	.....
South America	1,166,890	13,182,040
Argentina	168,355	11,113,095
Brazil	67,981	351,190
Chile	783,575	1,367,410
Peru	2,740	5,126
Uruguay	144,239	345,219
Asia	18,056	61,961
China	10,456	.....
Turkey in Asia	3,800	61,933
All other countries	3,800	28
Africa	1,105,730	660,680
British Africa	1,102,793	626,141
All other countries	2,937	34,539
All other countries	1,000	26,560

CLASS II WOOLS.

In the imports of these wools there has been but little change, the total quantity being 9,885,173, which was only 2,226,367 pounds more than the importations in 1890. The United Kingdom was the great source of supply, furnishing 7,805,222 pounds of the total, which is 907,818 pounds in excess of the quantity imported thence in 1890.

IMPORTS OF CLASS II WOOLS, BY COUNTRIES OF PRODUCTION: 1890–1900.

	1890	1900
	Pounds.	*Pounds.*
Total	7,658,806	9,885,173
Australasia	.....	125,467
Europe	7,312,278	8,885,173
Austria-Hungary	.....	55
England	6,897,404	5,693,724
Ireland	.....	1,660,971
Scotland	.....	450,527
France	11,526	.....
Germany	110	296
Netherlands	.....	78,240
Turkey in Europe	103,238	180,783
South America	19	748,867
Colombia	19	.....
Peru	.....	543,866
Uruguay	.....	295,001
Asia	157,432	930,705
China	110,647	13,387
India	.....	743
Russia in Asia	.....	39,674
Turkey in Asia	46,785	841,993
All other countries	.....	34,908
Africa	3,412	15,538
British Africa	3,412	11,691
All other countries	.....	3,847
North America	185,605	.....
Quebec, Ontario, Manitoba, and Northwest Territory	159,861	.....
British Columbia	25,804	.....

WOOLS ENTERED FOR CONSUMPTION.

The following table shows the imports of wool entered for consumption, giving quantities and values, divided into classes according to the tariff classification:

TABLE 13.—WOOLS ENTERED FOR CONSUMPTION IN THE UNITED STATES, 1867 TO 1900, BY CLASS, QUANTITY, AND VALUE.

YEARS.	Total pounds.	NO. 1.—CLOTHING.		NO. 2.—COMBING.		NO. 3.—CARPET WOOLS.	
		Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
1867	37,683,675	1,270,356	$415,609	150,302	$31,827	36,263,017	$5,332,074
1868	24,582,551	4,681,679	918,588	1,804,272	332,315	18,096,600	2,704,768
1869	34,695,940	2,512,202	505,715	4,533,367	1,092,297	27,650,371	3,653,082
1870	38,634,067	6,530,493	1,249,152	2,752,569	765,147	29,351,005	3,416,024
1871	50,174,056	5,957,461	1,201,201	17,665,600	3,167,835	26,550,995	3,335,638
1872	94,315,933	16,871,332	4,183,960	41,155,460	8,952,131	36,289,141	6,435,468
1873	84,212,582	6,029,488	1,744,200	49,540,231	12,723,501	28,642,863	5,998,465
1874	56,793,737	2,398,210	815,307	27,087,437	6,193,150	27,308,090	4,603,410
1875	51,686,294	13,117,679	3,602,535	7,769,157	2,153,261	30,799,458	4,472,826
1876	40,275,678	8,643,366	2,187,713	3,167,307	1,153,504	28,465,005	4,546,398
1877	40,114,394	9,294,029	2,202,639	2,509,954	830,715	28,310,411	3,979,617
1878	39,801,161	9,916,012	2,431,043	3,028,869	969,683	26,856,280	3,594,640
1879	40,102,642	5,229,987	1,114,301	1,709,601	413,761	33,163,054	3,988,752
1880	99,372,440	26,785,172	6,412,273	13,266,856	3,801,730	59,320,412	7,699,663
1881	67,416,967	20,609,707	4,751,454	4,421,491	1,271,332	42,385,769	6,038,041
1882	63,016,769	13,489,923	3,042,407	2,318,671	648,252	47,208,175	6,642,699
1883	53,049,967	11,546,530	2,567,443	1,373,114	343,987	40,130,323	5,580,558
1884	87,703,931	20,703,843	4,700,605	4,474,396	1,058,758	62,525,692	7,833,936
1885	68,146,652	13,472,432	2,994,533	3,891,914	921,252	50,782,306	5,558,479
1886	107,910,549	23,321,759	4,344,189	4,872,739	1,106,116	79,716,051	8,343,108
1887	114,404,173	23,195,734	4,339,498	9,703,962	2,270,058	81,504,477	9,741,814
1888	97,231,267	16,952,513	3,648,780	5,568,068	1,322,862	74,710,686	9,090,459
1889	126,181,273	22,973,688	4,764,015	6,651,719	1,556,309	96,556,466	11,112,435
1890	109,902,105	21,387,867	4,856,640	7,662,978	1,895,535	80,851,260	9,412,866
1891	119,390,280	26,520,670	6,025,452	6,973,921	1,640,262	85,895,689	9,404,468
1892	134,622,366	38,641,130	7,731,730	5,421,081	1,222,884	90,560,125	8,742,454
1893	175,636,042	35,403,022	6,555,640	4,035,439	1,535,812	133,197,581	10,312,237
1894	45,726,056	7,860,841	1,449,254	1,334,631	337,679	36,530,584	3,404,873
1895	265,726,348	106,516,023	16,595,687	14,722,090	2,892,542	144,488,335	13,135,902
1896	228,647,543	117,533,750	19,512,199	12,992,576	3,121,030	98,121,217	9,511,225
1897	350,250,028	200,485,096	34,307,110	37,949,945	7,182,664	110,814,987	11,729,623
1898	70,333,668	18,122,092	3,320,651	3,865,682	776,583	48,345,894	4,608,455
1899	77,388,192	9,583,053	1,565,954	2,160,370	572,205	65,644,769	6,225,080
1900	128,250,945	19,369,622	3,760,696	9,910,979	2,091,373	98,970,344	9,181,151

The Class I and II wools are those used by the general wool manufacture. The Class III wools are coarse wools, used principally in the manufacture of carpets. The importations for consumption of the latter wools amounted to 656,371,205 pounds for the decade ending 1890 and 912,569,525 pounds for the succeeding decade, which gives an average annual supply of the Class III wools for the first of these decades of 65,637,120 pounds, and for the second decade 91,256,952 pounds, which was in each instance a smaller quantity than the imports for the corresponding census year.

For the purpose of comparison the Class I and II wools may be considered together, for these are the wools which enter into competition with wools of domestic production. The total of these wools imported for the decade ending 1890 is 238,592,448 pounds, the annual average 23,859,245 pounds. For the decade ending with 1900, these importations amounted to 679,402,018 pounds, the annual average being 67,940,201 pounds.

The very large importations of wool of all classes in the years 1895, 1896, and 1897 were preceded in 1894 and followed in 1898 and 1899 by the smallest importations for many years. From the close approximation in 1900 of the imports (128,250,945 pounds) to the quantity reported as used, it may be assumed that the oversupply of wool imported in the years 1895–1897 had been disposed of in the manufacture. It may be explained that the large imports of the years mentioned above (1895–1897) were not technically "entered for consumption," but, coming in during the free-wool period, they were not "entered in bond," but taken directly out of the Government's custody and held in public and private storehouses until the market called for them.

It appears also that the importations of Class I and II wools in 1898, 1899, and 1900 were below the average quantity and that the increased importations during the last three years of the decade were principally of Class III wools.

WOOL CONSUMPTION.

The consumption of foreign wool in 1900, in condition purchased, amounted to 139,881,799 pounds, of which 51,761,523 pounds used were the coarse wools of Class III consumed in the carpet manufacture. In addition to the raw wool consumed, these mills used 9,218,267 pounds of worsted yarn made in other mills, which was manufactured from imported wool, and required, on the basis of 2 pounds of wool to the pound of yarn, 18,436,534 pounds. This, added to the wool consumed in the mills, makes a total of 70,198,057 pounds of Class III wool accounted for in this manufacture. How much more imported Class III wool was used in the manufacture of the woolen yarn purchased for use in the carpet manufacture, amounting to 32,996,316 pounds, must be a matter of conjecture, but as the estimated total used falls short of the average quantity entered for consumption for the decade by about 21,000,000 pounds, it is probable that not less than 10,000,000 pounds of foreign wool entered into the composition of these yarns. If, then, the sum of these items, or 80,198,057 pounds represents the consumption of foreign wools in the carpet industry, there remains of the average importations 11,068,868 pounds for use in the manufacture of the low-grade blankets and other coarse goods to which these wools are adapted. Assuming that the consumption of Class III wools equals the average importations, the remainder of the foreign wool used, 57,683,742 pounds, would be of Class I and II, of which the annual average importation for the decade was, as already stated, 67,940,201 pounds. The total imports of Class I and II wools entered for consumption for the last three years of the decade amounted to only 63,011,798 pounds, or about 5,000,000 pounds less than the average annual importations. This was much less than a normal supply, and the deficiency was made good from the excessive importations of preceding years.

In addition to the sheep's wool used, a considerable quantity of mohair, which is the hair of the Angora goat, camel's hair, and alpaca hair are consumed in the wool manufacture. The mohair and alpaca, for the most part imported, are included with the Class II wools, being suitable only for combing purposes. The camel's hair was formerly all considered a Class III wool, but under the present tariff it is divided between Classes II and III, that coming from China being of Class II and that from Russia of Class III. The importations of mohair and alpaca and similar hairs entered for consumption during the decade amounted to 12,577,814 pounds, the annual average being 1,257,781 pounds. The importations in 1900 were 1,829,892 pounds. Of camel's hair the imports for the ten years were 23,284,492 pounds, an annual average of 2,328,449 pounds. The importations of 1900 amounted to 1,446,338 pounds, of which 126,762 pounds were of Class II, the remainder being of Class III. The consumption of camel's hair and noils, which amounted to 7,684,804 pounds in 1890, has so decreased that the census of 1900 accounted for the use of only 2,994,427 pounds. In 1890 the consumption of mohair and mohair noils was reported at 2,136,244 pounds. In 1900 the quantity of alpaca, mohair, and mohair noils consumed was reported as 3,794,207 pounds. The consumption of buffalo, cow, and all other hair, which is used principally in the carpet manufacture and in the making of horse blankets and similar goods, amounted to 29,416,283 pounds, an increase of 12,550,519 pounds over 1890, when the quantity of such hair consumed was 16,865,764 pounds.

The total quantity of wool consumed "in condition purchased" in all branches of wool manufacture, and in hosiery and knit-goods factories, was 412,323,430 pounds, to which must be added the camel's hair, mohair, and alpaca used, and all other hair (36,204,917

pounds), and 25,000,000 pounds estimated as the proper addition on account of wool purchased in the scoured state, making a total of 473,528,347 pounds of wool and hair as the raw material of animal origin used in the manufacture. Besides the above, about 1,000,000 pounds of wool was consumed in the shoddy mills, in institutions, and in small establishments having a product of less than $500 value. To ascertain the approximate quantity of animal fiber consumed there should be added a quantity equivalent to the amount of woolen and worsted yarns imported. In the fiscal year 1890, the importations of these yarns amounted to 3,229,778 pounds, but was very much less in 1900, amounting to only 172,988 pounds, which may be reckoned as equivalent to 500,000 pounds of greasy wool, and makes the approximate consumption of wool in the grease 475,000,000 pounds. A similar calculation showed the consumption of 1890 to have been 434,000,000 pounds. The increase in consumption of animal fiber over 1890 is therefore 41,000,000 pounds, or 9.4 per cent.

The following statement, prepared from the census reports and the United States Treasury statements of imports, shows the per capita consumption of wool in the United States for each census year from 1840 to 1900, inclusive:

COMPARATIVE CONSUMPTION OF WOOL IN THE UNITED STATES: 1840 TO 1900.

[Imports and exports for year ending June 30.]

YEAR.	Imports of wool entered for consumption.	Home production of wool.	Domestic exports.	Net supply.	Imports of wool manufactures, allowing 3 pounds of wool to the $1 in value.	Total consumption.	Per capita consumption of wool.
	Pounds.[1]	Pounds.	Pounds.	Pounds.	Pounds.	Pounds.	Pounds.
1840	[2]9,813,212	35,802,114	.....	45,615,326	31,095,276	76,710,602	4.49
1850	18,695,294	52,516,969	35,898	71,176,365	58,178,613	129,354,978	5.58
1860	26,125,891	60,264,913	1,055,928	85,334,876	128,497,923	213,832,799	6.80
1870	38,634,067	162,000,000	152,892	200,481,175	105,289,422	305,770,597	7.93
1880	99,372,440	232,500,000	191,551	331,680,889	95,503,641	427,184,530	8.52
1890	109,902,105	276,000,000	231,042	385,671,063	162,496,269	548,167,332	8.75
1900	128,250,945	[3]310,953,140	2,200,309	437,003,776	46,861,460	483,865,236	5.97

[1] Quantities for 1840, 1850, and 1860 are imports, less reexports.
[2] Year ending September 30.
[3] Census report includes wool and mohair, and pulled wool estimated at 33,000,000 pounds.

This statement is misleading, because the estimate of the quantity of wool in imported goods for the year ending June 30, 1900, is based upon an importation much less than the average amount. A fairer estimate would be one based on the average of such imports for a series of years. The imports of manufactures of wool averaged annually $31,623,265 for the ten years 1891–1900, and for the last five years of the decade the annual average was $28,837,019, which though smaller than the average for the decade is more than double the value of imports for the year under consideration. Making use of the latter statement as the more conservative, the wool required for the imported goods would be 86,511,057 pounds, or 39,649,597 pounds more than is given in the table. If, therefore, to the net supply as reported in the table this quantity is added, the total consumption would amount to 523,514,833 pounds. On the basis of the population as ascertained at the census of 1900 the per capita consumption of wool would equal 6.93 pounds, or about 1 pound more than the table shows. This is a reduction of 1.82 pounds in the per capita consumption as shown by the table for 1890, and can be accounted for by the increasing use of cotton in piece goods, and especially in hosiery and knitted garments for underwear. The consumption of cotton and cotton yarns in the hosiery and knit goods factories, which was 64,681,466 pounds in 1890, increased to 181,271,369 pounds in 1900, an increase of 116,569,903 pounds, thus supplanting an enormous quantity of wool flannels and undergarments.

COTTON AND COTTON YARNS.

The quantity of cotton used in the wool manufacture, exclusive of hosiery and knit goods, was 27,869,706 pounds in 1880, 42,996,248 pounds in 1890, and 43,414,502 pounds in 1900. A part of this cotton was used on the cards with wool, for the production of merino or mixed yarns, and part was spun into yarns for warp, for cotton-warp dress goods, linings, flannels, satinets, etc. At the census of 1900 the inquiry was made as to the number of pounds of cotton yarn made in the mills for use therein, and while the reports were not entirely satisfactory, the tabulations show 7,733,291 pounds of cotton yarn thus made. Besides the raw cotton used, the various branches of the wool manufacture consumed 55,217,994 pounds of cotton yarn, which required for its production about 65,000,000 pounds of raw cotton, so that the approximate consumption of this fiber in the manufacture was 108,000,000 pounds. In 1890 the same class of mills consumed 42,996,248 pounds of raw cotton and 51,376,019 pounds of cotton yarn, requiring for its production about 60,000,000 pounds of raw cotton, so that the total quantity of cotton used in the production of these mills at that time was approximately 103,000,000 pounds. The total quantity of cotton required for the

wool manufacture in 1900 appears to be 108,000,000 pounds, against 394,369,523 pounds of wool used. The cost of the cotton used in the wool manufacture was $3,487,132, which, added to the cost of the cotton yarn consumed, $9,568,864, makes $13,055,996 as the cost of the cotton consumed. The value of foreign and domestic wool consumed was $89,893,350.

SHODDY.

The following statement shows the comparative quantities of scoured wool and shoddy used in the wool manufacture in all its branches in 1890 and 1900:

COMPARATIVE STATEMENT OF WOOL AND SHODDY CONSUMED IN THE WOOL MANUFACTURE: 1890 AND 1900.

[Exclusive of hosiery and knit goods.]

	1900 (Pounds.)	Per cent of total.	1890 (Pounds.)	Per cent of total.
Scoured wool	238,632,452	76.9	197,174,021	77.7
Shoddy purchased	34,496,508	23.1	56,826,475	22.3
Shoddy made	37,000,000			
Total	310,128,960		255,000,496	

In addition to the shoddy purchased, it is estimated that 37,000,000 pounds were produced and used in the mills. This amount added to the 34,496,508 pounds purchased makes a total of 71,496,508 pounds of shoddy used in the wool manufacture in 1900, an increase of 14,670,033 pounds over the consumption in similar mills in 1890, although, because of the larger quantity of wool used, the percentage of wool and shoddy is about the same in each census. The increased production of worsted goods in which little shoddy is used makes the quantity of shoddy used in the carded wool manufacture much larger in proportion than it was ten years before.

SCOURED WOOL, ANIMAL HAIR, SHODDY, AND COTTON USED: 1880–1900.

[Exclusive of the hosiery and knit-goods manufacture.]

	DATE OF CENSUS.			PER CENT OF TOTAL.		
	1900 (Pounds.)	1890 (Pounds.)	1880 (Pounds.)	1900	1890	1880
Total	443,431,261	375,635,079	283,086,551	100.0	100.0	100.0
Scoured wool, including camel's hair and mohair	244,216,894	207,584,746	167,634,157	55.1	55.3	59.2
Cotton and cotton yarn	98,632,496	94,372,267	58,481,712	22.2	25.1	20.7
Shoddy and animal hair, not specified	100,581,871	73,678,066	56,970,682	22.7	19.6	20.1

The percentage of scoured wool to other fibers used in all branches of the wool manufacture was 59.2, 55.3, and 55.1 per cent, respectively, in 1880, 1890, and 1900. Cotton, which includes the cotton yarn consumed, the two being combined, comprised 20.7 per cent in 1880, 25.1 per cent in 1890, and 22.2 per cent in 1900 of the consumption. The actual quantity of raw cotton used was greater than the amounts shown by an amount equal to the difference between the quantity of yarn used and the number of pounds of raw cotton required for its manufacture.

The proportion of shoddy and animal hair used was 20.1 per cent in 1880, 19.6 in 1890, and 22.7 in 1900. The use of shoddy has made possible a greater supply of warm clothing than could have been obtained without it, while the mixture of cotton and cotton yarn with wool has made possible the production of soft, light-weight fabrics, well adapted for use where lightness, moderate warmth, and low cost are desired, and consequently the people are better clad than before these combinations were devised.

In the general tables there appears a large quantity of waste and noils of which no account is taken in the table above. These materials are products of the card and comb and spindle, thrown out in the earlier manufacturing processes in some mills, and purchased by others, being adapted to their use. They are wool that has never been made up into fabrics, and having been once reported as wool purchased can not again be properly counted in the material actually consumed. The so-called wastes are of various kinds, such as card waste, spinning waste, yarn waste, etc. The best of these materials is the noil, which is composed of short fibers of clean wool discarded in the combing process. It is very useful for many purposes, particularly in the manufacture of blankets and hosiery and knit goods.

AVERAGE COST OF SCOURED WOOL.

The following statement shows the quantity and average cost of scoured wool consumed in the wool manufacture and in each branch of the industry in each of the last three census years.

AVERAGE COST OF SCOURED WOOL CONSUMED IN THE WOOL MANUFACTURE AND IN EACH BRANCH: 1880 to 1900.

MILLS.	Year.	Quantity, pounds, scoured.	Cost.	Average cost per pound, cents.	Per cent of decrease.
Total	1900	238,632,452	$89,893,350	37.71	17.2
	1890	198,174,021	90,286,066	45.56	19.5
	1880	165,953,139	93,860,421	56.56	
Woolen mills	1900	89,366,903	34,497,689	38.60	20.8
	1890	100,226,094	48,859,811	48.75	20.6
	1880	109,724,213	67,380,250	61.41	
Worsted mills	1900	103,338,616	44,306,141	42.88	16.6
	1890	54,989,746	28,280,287	51.43	11.1
	1880	26,334,635	15,235,878	57.85	
Felt mills	1900	6,468,097	2,196,440	33.96	22.3
	1890	4,213,230	1,841,382	43.70	26.5
	1880	2,733,796	1,624,871	59.44	
Wool-hat mills	1900	1,898,605	788,973	41.55	13.4
	1890	3,018,114	1,448,799	48.00	34.7
	1880	3,597,279	2,644,293	73.50	
Carpet mills	1900	37,560,231	8,104,107	21.57	21.8
	1890	35,726,837	9,855,787	27.59	6.8
	1880	23,563,216	6,975,129	29.60	
Quantity of wool "in condition purchased"	1900	394,369,523	89,893,350	22.79	11.4
	1890	351,158,020	90,286,066	25.71	21.2
	1880	287,597,334	93,860,421	32.64	

The consumption has increased 43.8 per cent over 1880 and 20.4 per cent, equal to 40,458,431 pounds, over 1890. The decrease in average cost per pound has been 33⅓ per cent since 1880, and 17.2 per cent since 1890. The relative quantity used varied in the different branches of the industry, there being a reduced quantity used in the card wool mills and in the wool-hat factories; a comparatively small increase in the carpet mills; an increase of over 2,000,000 pounds, or more than 50 per cent, in the felt mills; and an increase of over 48,000,000 pounds, or 88 per cent, in the worsted manufactories. The decrease in average cost per pound varied in the several branches, the least reduction being in the wool-hat mills, 13.4 per cent, and the worsted factories, 16.6 per cent. The greatest reduction in average cost appears for the felt mills, 22.3 per cent. In the woolen mills it was 20.8 and in the carpet mills 21.8 per cent. Although the wool used in the last three differs greatly in quality, the average reduction in cost per pound shows only a slight difference. The reduction in the average cost of the wool used in all the mills was 17.2 per cent.

The average cost per pound seems low when compared with the weekly trade reports. These reports, however, include a few standard lines only, while the census reports combine the wool of all kinds and qualities. The variation in the cost of the wool used in the several branches is noticeable. The highest average of cost is found in the worsted mills, as would be expected, and the lowest in the carpet mills, which use the cheapest foreign wools. The cost of these scoured wools agrees very closely with the duty-paid value of the importations when reduced to the scoured basis.

DYESTUFFS AND CHEMICALS.

Under this head come expenditures for soap and potash for scouring wool, soap used in fulling and cleansing cloths, oil used in lubricating wool for carding and spinning, the various chemicals necessary in the manufacture, and dyestuffs for dyeing. The comparative cost of these items in the wool manufacture in 1900 and 1890 is as follows. The similar costs in the hosiery and knit-goods industry will be given elsewhere.

YEARS.	Dyestuffs and chemicals, value.	OIL.		SOAP.	
		Gallons.	Value.	Pounds.	Value.
1900	$7,983,684	3,501,582	$1,039,679	36,136,593	$1,379,886
1890	5,889,612	3,715,114	1,239,012	32,643,591	1,106,359

This statement shows the cost of these materials used in the wool manufacture, but takes no cognizance of the large cost incurred for dyeing and printing yarns and cloths in outside establishments. A table on page 97 shows that the value added to woolen goods by these processes in the dyeing and printing establishments was $4,240,456, which represents the cost to the woolen manufacture of finishing processes carried on away from the mills.

There is no available data indicating the extent to which artificial dyes have supplanted natural dyestuffs and coloring matter in the textile manufacture, although some idea of the magnitude of the change can be gathered by a comparison of the imports of natural and artificial dyeing materials in 1890 and 1900. The statement following shows the foreign value of these imports for each of the years, and where possible quantities are also stated. The production of synthetic indigo, which has by recent inventions been made commercially successful is perhaps the greatest recent step in advance in the production of artificial colors.

IMPORTS OF NATURAL AND ARTIFICIAL DYES AND DYESTUFFS ENTERED FOR CONSUMPTION, FISCAL YEARS 1890 AND 1900.

ARTICLES.	Unit.	1900		1890	
		Quantity.	Value.	Quantity.	Value.
NATURAL.					
Total			$3,643,879		$5,534,774
Logwood	Tons	48,190	628,464	66,768	1,501,566
Logwood, extracts of, etc.	Pounds.	3,420,276	227,527	2,928,600	222,029
Camwood	Tons	1	161		
Fustic	Tons	4,440	60,886	10,922	157,187
Other dyewoods	Tons	20,967	205,351	2,184	64,482
Cudbear	Pounds.	61,305	3,944	401,836	39,306
Gambier	Pounds.	38,857,515	906,282	25,617,977	1,398,218
Indigo:					
Crude	Pounds.	2,747,043	1,446,490	2,824,053	1,827,937
Carmined	Pounds.	18,204	15,767	24,963	31,391
Extracts, etc	Pounds.	251,538	20,094	913,813	57,250
Madder	Pounds.	120,736	5,869	912,866	52,090
Orchil or orchil liquid			47,134		87,848
Safflower and extracts, and saffron and saffron cake			44,502		49,736
Cochineal		158,911	31,408	218,218	45,734
ARTIFICIAL.					
Total			6,101,251		2,547,371
Oil of aniline	Pounds			610,875	97,801
Salts of aniline			537,812		276,917
Alizarin, etc	Pounds.	6,009,552	771,336	2,155,020	358,882
Coal-tar colors, n. e. s.			4,792,103		1,813,771

YARNS PURCHASED.

Although the value of the woolen and worsted yarns consumed is an important item in the wool manufacture, other yarns are also used to a large amount. The first of the statements following shows the quantity and value of yarns purchased in the years 1880, 1890, and 1900, and the second the quantity and value of each kind of yarn purchased in each branch of the woolen industry in 1900. Comparisons with the reports of the census of 1890 show that the total quantity of yarn purchased has increased 45,449,515 pounds, of which 13,903,884 pounds were woolen, 9,710,054 pounds worsted, 3,841,975 pounds cotton, and 16,169,736 pounds jute. The quantity of linen yarn used has decreased 1,406,846 pounds and of silk yarns 96,636, while mohair yarns have disappeared from the list.

YARNS PURCHASED, 1880 TO 1900.

YEAR.	Pounds.	Cost.
1900	181,104,221	$45,588,908
1890	135,654,706	42,142,403
1880	55,535,390	20,814,384

YARNS PURCHASED IN 1900.

	TOTAL.		WOOLEN MILLS.		WORSTED MILLS.		CARPET MILLS.		FELT MILLS.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Total	181,104,221	$45,588,908	35,595,804	$10,645,437	35,679,243	$19,598,986	109,699,152	$15,293,979	150,022	$50,506
Woolen	38,903,178	7,705,797	3,059,771	1,272,954	2,847,091	1,402,189	32,996,316	5,030,654	.....	.....
Worsted	34,377,736	23,068,988	6,214,076	4,791,079	18,896,863	14,704,172	9,218,267	3,544,860	48,530	28,877
Merino	3,904,515	709,894	3,215,245	516,636	419,434	147,891	237,970	38,994	31,866	6,373
Cotton	55,217,994	9,568,864	21,922,136	3,782,240	13,420,590	3,032,039	19,823,561	2,744,928	51,707	9,657
Silk	70,073	334,001	34,007	145,514	26,418	144,971	9,634	43,455	14	61
Spun silk	250,270	489,537	23,957	72,632	47,533	166,672	178,780	250,233	.....	.....
Linen	8,415,275	1,178,414	7,845	6,998	1,314	1,052	8,388,211	1,164,826	17,905	5,538
Jute, ramie, or other yarns of vegetable fiber	39,965,180	2,533,413	1,118,767	57,384	.....	.....	38,846,413	2,476,029	.....	.....

DYEING AND FINISHING.

The products of the wool manufacture are of three classes, goods dyed in the wool, in the yarn, and piece dyed goods, the names of which are sufficiently descriptive. Most manufacturers have their own dyeing and finishing plants, but in many cases the goods are sent to some outside dyeing establishment to be dyed and finished. The cost of this work is an important item to the manufacturer. The following statement shows the quantity of goods operated on in dyeing and finishing mills, and the value added by the process:

MATERIALS	Quantity dyed (pounds).	Added value.
Total	.....	$4,240,456
Wool	2,408,511	83,071
Woolen yarns	20,755,984	557,001
Worsted yarns	8,474,562	491,291
Woolen piece goods	[1] 11,243,394	451,864
Worsted piece goods	[1] 9,413,337	476,951
Mixed goods	.....	2,180,278

[1] Square yards.

PRODUCTS.

The value of products as given in the tables is the gross value as ascertained from the various schedules. This value includes much duplication, for not infrequently the finished product of one establishment enters as a material into another, and after going through certain manipulations appears again as a product, to again enter another establishment as material. In a wool-combing establishment, for instance, the top is produced and sold to the worsted spinning mill, where it is made into yarn, which is sold to the worsted cloth or dress goods weaver, in whose hands it becomes the finished product, ready for the clothing manufacturer or the market, as the case may be. Thus, the value of the top and the value of the yarn, as well as the value of the finished cloth, all appear in the total value of products, while it is clear that the true value is the value of the finished cloth. If, as was formerly the custom in all and is now the practice in many establishments, all these processes were carried on under one management, these duplications of value would not arise. At the Eleventh Census it was found impossible to eliminate these duplications, but at the census of 1900 the schedules were so prepared as to permit of the separation of the materials used into raw materials upon which no manufacturing processes have been employed and materials purchased in partly manufactured form.

GROSS AND NET VALUES.

The value of the products of the wool manufacture was $296,990,484 in 1900, compared with $270,527,511 in 1890, an increase of 9.8 per cent. These values are in each case the gross value, ascertained by the addition of the sums representing the production of the various establishments, many of which make only yarn, or other partially manufactured products, which enter into other factories for further manipulation.

In 1890 the true value was ascertained as nearly as possible by deducting the value of woolen and worsted yarns purchased, less the duty paid value of foreign yarns purchased. The sum thus ascertained was assumed to be the true value of the production of all woolen mills. To this sum was added the true value of the product of the shoddy mills, similarly ascertained, to obtain the total net value.

In the reports for the Twelfth Census the items duplicated are as follows:

All wastes and noils, tops, woolen, worsted, and merino yarns, hat bodies, and hats in the rough. These being made in woolen mills, enter twice into the value of product, being reported first by the mills making them and afterwards by the mills using them. Their value and also the sum paid for contract work should be taken from the total value ascertained for goods produced.

The result obtained by the elimination of these items will not be strictly comparable with the amount obtained as the net value in 1890, but will be as nearly as possible the net value of the product of the industry.

The cost of all duplicated items in the wool manufacture in all its branches is $41,391,681. This sum does not include $21,982 for fur hat bodies and hats in the

rough reported under wool hats. From it the duty paid value of foreign yarns, $228,872, imported during the census year, should be subtracted, which leaves $41,162,809 as the cost of material twice reported in the value of product. The difference between this sum and the gross value, or $255,827,675, is the net or true value of products in these mills in 1900.

The following is a statement of woven goods produced in 1900 and 1890, arranged according to their classification as all wool, mixed, and cotton-warp fabrics:

WOVEN GOODS PRODUCED IN WOOLEN AND WORSTED MILLS, 1890 AND 1900, WITH PER CENT OF INCREASE.

CLASSES.	Year.	Square yards.	Per cent of increase.	Value.	Per cent of increase.
Total	1900	426,572,856	12.0	$183,306,664	8.2
	1890	381,004,461	.....	169,409,239	.....
All wool, whether woolen or worsted	1900	216,359,702	66.3	117,757,169	44.1
	1890	130,115,152	.....	81,742,586	.....
Union or cotton mixed	1900	57,334,570	1.8	23,111,696	[1]4.9
	1890	56,322,882	.....	24,304,966	.....
Cotton warp, with weft partly or wholly of wool, worsted, or hair (or cotton weft with warp of wool)	1900	152,878,584	[1]21.4	42,437,799	[1]33.0
	1890	194,566,427	.....	63,361,687	.....

[1] Decrease.

The following table shows the products of the wool manufacture, of all classes, in 1890 and 1900:

TABLE 14.—WOOL MANUFACTURES: KIND, QUANTITY, AND VALUE OF PRODUCTS, 1890 AND 1900, WITH PER CENT OF INCREASE.

CLASSES.	1900	1890	Per cent of increase.
Total	$296,990,484	$270,527,511	9.8
Woolen, worsted, union, and cotton warp cloths, coatings, cassimeres, jeans, etc., for men's wear, square yards	169,177,028	122,064,528	38.6
Value	$97,852,209	$88,261,748	10.9
Woolen, worsted, union, and cotton warp overcoatings, cloakings, etc., for men's and women's wear, square yards	29,647,495	14,883,893	99.2
Value	$21,666,019	$13,082,801	65.6
Woolen, worsted, union, and cotton warp dress goods, sackings, tricots, opera flannels, cassimeres, buntings, ladies' cloth, alpaca, etc., for women's wear, square yards	155,767,439	127,259,709	22.4
Value	$45,278,216	$32,285,906	40.2
All wool, union, and cotton warp flannels, square yards	20,117,663	61,195,501	[1]67.1
Value	$4,613,129	$18,582,549	[1]75.2
Satinets, square yards	13,051,729	18,630,656	[1]29.9
Value	$2,873,181	$4,296,082	[1]33.1
Linings, Italian cloth, and lastings, square yards	10,157,039	4,585,080	121.5
Value	$2,228,434	$1,255,520	77.5
Jersey cloth, square yards	2,784	7,476	[1]62.8
Value	$1,010	$13,636	[1]92.6
Carriage cloths, square yards	1,220,408	1,282,921	[1]4.9
Value	$696,999	$626,791	11.2
Total piecegoods—			
Square yards	399,141,585	349,909,764	14.1
Value	$175,209,197	$158,405,033	10.6
Woven shawls of wool or worsted, square yards	600,104	4,758,652	[1]87.4
Value	$500,523	$2,098,523	[1]76.1
All wool, union, and cotton warp blankets, square yards	18,155,505	20,793,644	[1]12.7
Value	$5,200,959	$7,153,900	[1]27.3
All wool, union, and cotton warp horse blankets, square yards	7,315,304	5,507,074	32.8
Value	$1,740,988	$1,721,516	1.1
Carriage robes, square yards	1,740,089	775,963	124.2
Value	$987,109	$646,904	52.6
Total—			
Square yards	27,811,002	31,835,333	[1]12.6
Value	$8,429,579	$11,620,843	[1]27.5
Woolen, worsted, and union upholstery goods, square yards	541,909	4,131,288	[1]86.9
Value	$786,461	$2,365,881	[1]66.8
Braids and picture cards, etc., running yards	[2]	133,859,751	.....
Value	$2,922,850	$1,268,252	130.5
Total value	$3,709,311	$3,634,133	2.1
Ingrain carpets, 2 and 3 ply and ingrain art carpets, square yards	42,352,500	36,726,370	15.3
Value	$15,405,081	$15,924,452	[1]3.3
Tapestry and body Brussels, tapestry velvet, Wilton, Axminster, and Moquette carpets, running yards	32,423,883	36,536,565	[1]11.3
Value	$21,036,996	$27,125,980	[1]22.4
Smyrna carpets, square yards	858,189	127,177	574.8
Value	$1,188,707	$332,718	257.3
All other carpets, square yards	[3]	1,394,153	.....
Value	[3]	$451,486	.....
Smyrna rugs, square yards	2,793,472	[4]1,430,036	[4]
Value	$2,491,911	$2,368,000	5.2
All other rugs, square yards	6,195,054	133,767	[4]
Value	$3,460,077	$261,781	1,221.7
Total value of carpets and rugs	$43,582,772	$46,464,417	[1]6.2
Felt cloths, endless belts, trimmings, linings, etc., square yards	6,933,524	6,662,759	4.1
Value	$3,078,949	$2,930,199	5.1
All other felts, value	$2,285,340	$1,284,325	77.9
Total value of felt goods	$5,364,289	$4,214,524	27.3
Wool hats, dozens	823,425	1,046,481	[1]21.3
Value	$3,166,761	$5,229,176	[1]39.4
Wool-hat bodies, dozens	56,006	[3]	.....
Value	$120,262	[3]	.....
Woolen and union or merino yarns, pounds	49,796,632	41,362,993	20.4
Value	$11,748,895	$12,590,267	[1]6.7
Worsted and mohair yarns, pounds	46,784,385	29,359,182	59.4
Value	$32,095,805	$22,397,721	43.3
Cotton yarns, pounds	3,531,992	3,192,936	10.6
Value	$527,046	$632,849	[1]16.7
Wool rolls, noils, waste, and all other partly manufactured products, pounds	23,283,240	12,850,039	81.2
Value	[2] $5,231,377	$3,176,653	64.7
Total yarns and partly manufactured products:			
Value	$49,723,385	$38,797,440	28.2
Woolen, merino, and cotton half hose, dozens	4,290	2,438	76.0
Value	$13,520	$7,721	75.1
Woolen, merino, and cotton hose, dozens	908	9,147	[1]90.1
Value	$3,302	$21,363	[1]84.5
Gloves and mittens, dozens	1,238	1,931	[1]35.9
Value	$4,641	$6,950	[1]33.2
Total value of hosiery and knit goods	$21,463	$36,034	[1]40.4
All other products,[5] value	$6,170,673	$1,971,524	213.0
Contract work, value	$1,613,054	$154,337	945.2

[1] Decrease.
[2] Not reported.
[3] Nothing reported under this heading.
[4] Number of rugs reported in 1890; square yards reported in 1900.
[5] All other products include, in addition to the usual miscellany, some small amounts of hosiery and knit goods that were not reported in both censuses; hence they could not be compared.

The first group, woolen cloths, etc., the piece-goods production, as shown in Table 30, shows an increase in 1900 over 1890 of 49,231,821 square yards in quantity, and $16,804,164 in value. In the second group, shawls, blankets, and carriage robes, there is a decrease both in quantity and value. The quantity is 4,024,331 square yards and the value $3,191,264 less than in 1890. The third group likewise shows a reduction which evidently

arises from a change in classification which makes it appear that only 541,909 square yards of upholstery goods were made in 1900, against 4,131,288 square yards in 1890. That no such falling off in the manufacture occurred is certain, and the products have been reported under the head of all other products, or with other piece goods. In the carpet manufacture the yardage exceeds the yardage reported in 1890, but the value is reduced $2,881,645, which is accounted for by the lower cost of materials, and the larger production of the lower grades of carpets. The products of the felt manufacture have increased both in quantity and value. The wool-hat manufacture shows a decrease.

The production of partially manufactured products for sale shows a large increase, of which the greater part is in yarns. In 1890 the production of yarns equalled 73,915,111 pounds, valued at $35,620,837. At the census of 1900 the production was 100,113,009 pounds, worth $44,371,746, an increase of 35.4 per cent in quantity and of 24.6 per cent in value. The value reported for all other products has increased nearly one-half. An item not previously reported, appears here, namely, "Contract work," being the amount received in certain mills for work done for other establishments. It is properly added to the gross product, but is offset by the sums reported as paid for contract work under the head of miscellaneous expenses.

CLASS I.—WOOLEN GOODS.

The card-wool branch of the wool manufacture has always been preeminent in the variety of its products and their adaptability to the needs of the consumer. It is also numerically the most important. It is in the woolen mills that the great mass of goods required for clothing the people has been made. The products consist of broadcloths, doeskins, cassimeres, satinets, jeans, flannels, blankets, woolen and cotton mixed dress goods, linings, etc. At the census of 1900 the industry seems to be in danger of yielding its relative importance. The introduction of the worsted cloth for men's wear and the wonderful development of the knit-goods manufacture have made great inroads on the consumption of carded wool goods which formerly were necessities, substituting combed wool fabrics for men's wear and knitted underwear in place of flannels. Principally for these reasons the returns show a falling off in every particular, and it is only in woolen goods and in the wool hat manufacture that the wool industry shows loss. The reduction in the number of establishments may be attributed mainly to the gradual disappearance of small country mills and to some extent to the transfer of mills from the carded to the combed wool manufacture.

The following table is a summary of the statistics of the woolen-goods manufacture from 1840 to 1900, with per cent of increase for each decade:

TABLE 15.—WOOLEN GOODS: COMPARATIVE SUMMARY, 1840 TO 1900, WITH PER CENT OF INCREASE FOR EACH DECADE.

	DATE OF CENSUS.							PER CENT OF INCREASE.					
	1900	1890	1880	1870	1860	1850	1840	1890 to 1900	1880 to 1890	1870 to 1880	1860 to 1870	1850 to 1860	1840 to 1850
Number of establishments	1,035	1,311	1,990	2,891	1,260	1,559	1,420	[1]21.1	[1]34.1	[1]31.2	129.4	[1]19.2	9.8
Capital[2]	$124,386,262	$130,989,940	$96,095,564	$98,824,531	$30,862,654	$28,118,660	$15,765,124	[1]5.0	36.3	[1]2.8	220.2	9.8	78.4
Salaried officials, clerks, etc., number	2,246	[3]2,436	(4)	(4)	(4)	(4)	(4)	[1]7.8	.....	.....	.....	.....	.....
Salaries	$2,934,048	[3]$2,339,737	(4)	(4)	(4)	(4)	(4)	25.4	.....	.....	.....	.....	.....
Wage-earners, average number	68,893	76,915	86,504	80,053	41,360	39,252	21,342	[1]10.4	[1]11.1	8.1	93.6	5.4	83.9
Total wages	$24,757,006	$26,139,194	$25,836,392	$26,877,575	$9,610,254	(5)	(5)	[1]5.3	1.2	[1]3.9	179.7	.....	.....
Men, 16 years and over	40,601	42,130	46,978	42,728	24,841	22,678	(4)	[1]3.6	[1]10.3	9.9	72.0	9.5	.....
Wages	$16,913,731	$17,059,323	(4)	(4)	(4)	(4)	(5)	[1]0.9	.....	.....	.....	.....	.....
Women, 16 years and over	24,535	30,159	29,372	27,682	16,519	16,574	(4)	[1]18.6	2.7	6.1	67.6	[1]0.3	.....
Wages	$7,218,087	$8,371,274	(4)	(4)	(4)	(4)	(5)	[1]13.8	.....	.....	.....	.....	.....
Children, under 16 years	3,757	4,626	10,154	9,643	(4)	(4)	(4)	[1]18.8	[1]54.4	5.3	.....	.....	.....
Wages	$625,188	$708,597	(4)	(4)	(4)	(4)	(5)	[1]11.8	.....	.....	.....	.....	.....
Miscellaneous expenses	$7,268,634	$8,402,623	(5)	(5)	(5)	(5)	(5)	[1]13.5	.....	.....	.....	.....	.....
Cost of materials used	$71,011,956	$82,270,335	$100,845,611	$96,432,601	$36,586,287	$25,755,991	(5)	[1]13.7	[1]18.4	4.6	163.6	42.0	.....
Value of products	$118,430,158	$133,577,977	$160,606,721	$155,405,358	$61,894,986	$43,207,545	$20,696,999	[1]11.3	[1]16.8	3.3	151.1	43.3	108.8
Number of spindles	1,906,581	1,815,280	1,756,746	1,845,496	(5)	(5)	(5)	5.0	3.3	[1]1.8	.....	.....	.....
Number of looms	34,881	39,118	35,634	34,183	(5)	(5)	(5)	[1]10.8	9.8	1.2	.....	.....	.....

[1] Decrease.
[2] Does not include the value of rented property.
[3] Includes proprietors and firm members, with their salaries; number only reported in 1900, but not included in this table. (See Table 31.)
[4] Not reported separately.
[5] Not reported.

The high-water mark of production in the woolen goods branch of the wool manufacture was reached in 1880 before the worsted cloth had become the popular fabric. Since that time there has been a continual decrease. From 1880 to 1890 the decrease was 16.8 per cent, and amounted to $27,028,744 in value. In the last decade the decrease was 11.3 per cent, and the actual decrease $15,147,819. These totals do not, however, indicate the relative production of goods, for both decades were periods of falling values, and, therefore, the production measured by the square yard or pound would not show at either census so large a decrease.

The quantity of wool consumed in woolen mills in 1900 was only nine-tenths of the quantity consumed in 1890, and was about 20,000,000 pounds less than was used in 1880, the wool used in each case being measured by the scoured pound. The quantity of cotton used, while 10,000,000 pounds less in 1900 than in 1880, is 2,000,000 pounds more than was used in 1890. The quantity of shoddy used embraces the quantity purchased—31,228,940 pounds—and the quantity made in the woolen mills—35,626,165 pounds—and shows an increased consumption of about 15,000,000 pounds.

The quantity of shoddy used in these mills was 66,855,105 pounds. The proportions of clean shoddy and clean wool used were respectively 31.5 and 43.1 per cent of the raw material consumed in the card wool manufactures. A considerable portion of the fibers other than raw wool used in these mills was consumed in the manufacture of horse blankets and carriage robes, the production of which increased from 6,283,037 square yards in 1890 to 9,055,393 in 1900, or nearly 50 per cent. The manufacture of carpet yarns also required a large amount.

Cloths, Cassimeres, etc.—The most important department of the carded-wool manufacture is the manufacture of men's-wear goods, known as broadcloths, cassimeres, fancy cassimeres, satinets, and jeans. Of the first named but a comparatively small quantity is now made, the worsted cloth having taken its place. The all-wool cassimere has also given place to a great extent to the worsted cassimere, which has won popular favor by its more dressy appearance. The greater part of the goods for men's wear made in the woolen mills in 1900 were of the union and cotton warp classes, although the proportion, measured in square yards, was not so great as in 1890. This change is to be accounted for by the popularity of light flannels, slightly fulled, finished with a smooth face and used for summer suitings. The production of all-wool cloths—cassimeres, flannels, etc.—for men's wear in 1890 was 25,637,998 square yards, valued at $24,076,808, an average of 93.9 cents per square yard. In 1900 the production of similar goods amounted to 34,551,266 square yards, with a value of $22,860,783, averaging 66.2 cents. The increase in yardage has been nearly sufficient to overcome the decrease in the average value per yard, and this particular group of goods shows a total decrease in value in consequence of only $1,216,025. The reduction in average cost of the wool consumed, which is 11.5 per cent in woolen mills, accounts to some extent for the reduced value of the production.

The popularity of light woolen suitings for men's summer use without doubt accounts for the increased quantity of goods manufactured and also for the greater part of the reduction in the average value per yard.

Union or Mixed Goods for Men's Wear.—This class of goods shows an increase both in quantity and value. The production in 1890 was 21,042,283 square yards, valued at $12,720,597. The production in 1900 was 30,767,945 square yards, worth $13,695,830. The average value per square yard was 60.5 cents in 1890 and 44.5 cents in 1900.

Cotton-warp Goods.—The goods made on a cotton warp with a weft of wool or mixed wool and cotton, of which the satinet is the type, are the next in importance. They are known under various names, such as cassimeres, doeskins, tweeds, jeans, satinets, etc., but all have the cotton warp for their foundation. They are of low cost, but of comparatively durable quality and furnish clothing at low price and of sightly appearance. At the census of 1890 the production of these goods was reported to be 65,545,016 square yards, valued at $23,460,847, an average of 35.8 cents per yard. The present census shows quite a reduction, both in quantity and value, the figures being 50,212,178 square yards, the value $13,897,719, and the average per yard 27.7 cents.

The manufacture of satinets has decreased from 18,630,656 square yards, valued at $4,296,082, in 1890, to 13,051,729 square yards, valued at $2,873,181, in 1900. The average value per square yard has also been reduced from 23.1 to 22 cents. The manufacture of jeans, linseys, etc., of which, at the census of 1890, 17,126,217 square yards were reported, has become greatly reduced. They are not reported separately at this time, but combined with cotton-warp cassimeres, etc., which accounts in some measure for the increase of 8,589,231 yards in the goods reported under that head.

Of these two groups, union and cotton warp fabrics, the total production in 1890 was 86,587,299 square yards, and in 1900 it amounted to 80,980,093 square yards. The consumption of cotton yarn and of cotton in the woolen mills, in which nearly all these goods were made, in the last two census years was as follows:

	1900	1890
	Pounds.	*Pounds.*
Cotton	34,967,959	36,993,712
Cotton yarn	21,922,136	23,990,406

Flannels.—The production of cloths for men's wear owes much of its apparent increase to the fact that many light-weight goods are really flannels, although, from the use for which they are made, they are classed as cloths. Many more of similar character, but different finish, and classified as dress goods, and have thus been taken from the flannel tabulation. There still remains, however, a large quantity of flannels made for underwear, including all grades from the finest silk-mixed to the coarsest white flannel and the heavy substantial scarlet or blue twilled flannel so popular for shirtings for many years. All of these flannels have encountered serious competition from the knitted underwear, which, from its low price and satisfactory charac-

ter, has made serious inroads on the consumption, and therefore the production, of underwear flannels. The census of 1890 showed the production of 61,195,501 square yards, valued at $18,582,549, which were classified as flannels proper. The returns for 1900 account for only 20,117,663 square yards, valued at $4,613,129. There is no doubt that a portion of this decrease is owing to changed classification on schedules, but many of the most important mills formerly engaged in the general flannel manufacture have devoted a large part of their energies to the production of light cloths for dress goods and suitings.

Blankets.—An important department of the wool manufacture is the production of blankets, including horse blankets and carriage robes. These are of all grades, from the bed blanket made of the finest wool, of firm texture, of heavy weight, highly gigged and soft as down, to the coarsest horse blanket made with a cotton warp and of animal hair. The production of blankets proper shows a decrease. In 1890 the quantity reported was 20,793,644 square yards, valued at $7,153,900; in 1900 it was 18,155,505 square yards, valued at $5,200,959. The quantity of horse blankets manufactured has increased from 5,507,074 square yards in 1890 to 7,315,304 square yards in 1900. The value, however, has increased but very little. In 1890 it was $1,721,516, and in 1900, $1,740,988.

The manufacture of carriage robes shows a decided increase, both in volume and value, the figures being, for 1890, 775,963 square yards, valued at $646,904, and, in 1900, 1,740,089 square yards, valued at $987,109.

Shawls.—The shawl manufacture, which showed a great decrease in 1890 shows a still further reduction in 1900. The prevailing fashion for cloth and fur garments for ladies' use and for knitted shawls and similar wraps, has so reduced the demand for woven shawls that the reports show the production of only 600,104 square yards, valued at $500,523, which is only one-seventh of the quantity and one-fourth of the value of the shawls produced in 1890.

Woolen Dress Goods.—The production of all-wool dress goods has increased largely since 1890, while at the same time the cotton-warp product shows a reduction. The statistics are given under the head of dress goods in connection with the worsted manufacture.

CLASS II—WORSTED GOODS.

The next great division of the wool manufacture is the combed-wool branch, in which are manufactured worsted cloths and suitings, worsted dress goods, upholstery goods and braids, and large quantities of worsted yarns for use in the carpet manufacture. The worsted mills are distinguished from the woolen mills by the initial processes to which the fiber is subjected. In the early days of the wool manufacture in this country carded-wool products only were produced, partly because of the more simple character of the operations, and partly from the fact that the wool of Merino sheep raised here was not well adapted to the combing process as carried on by hand, or by early combing machines, for a long-staple wool was required to produce the best results. The improvements in the combing machine, which enables it to comb wool of short staple, and the adaptation of our wools to the combing process consequent upon the crossing of the Merino sheep with those of English blood, have resulted in the phenomenal growth of this industry.

It is claimed that John Marland, at a mill in Ballardvale, Mass., made, in 1843, the first attempt to manufacture worsted goods in the United States. He undertook the manufacture of delaines, both printed and piece dyed, but was not very successful. Other attempts were made by the Amoskeag Mills and the Manchester Mills, at Manchester, N. H., the latter company introducing their first combing machine in 1855. The Pacific Mills at Lawrence imported from England six Lister combs in 1854, and these are believed to have been the first combing machines of this pattern set up in the United States. The Hamilton Woolen Company, at Southbridge, Mass., commenced the manufacture of dress goods at about this time. The Washington Mills, of Lawrence, Mass., soon followed, manufacturing all-wool worsted dress goods. It was not until about 1869 or 1870, that the manufacture of worsted cloths for men's wear was commenced in the United States.

The following table shows the development of the industry since 1860, at which time only three worsted mills, the Manchester, Pacific, and Hamilton, were found in this country:

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TABLE 16.—WORSTED GOODS: COMPARATIVE SUMMARY, 1860 TO 1900, WITH PER CENT OF INCREASE FOR EACH DECADE.

	DATE OF CENSUS.					PER CENT OF INCREASE.			
	1900	1890	1880	1870	1860	1890 to 1900	1880 to 1890	1870 to 1880	1860 to 1870
Number of establishments	186	143	76	102	3	30.1	88.2	[1]25.5	3,300.0
Capital	$132,168,110	$68,085,116	$20,374,043	$10,085,778	$3,230,000	94.1	234.2	102.0	212.3
Salaried officials, clerks, etc., number	1,369	[2]615	[3]	[3]	[3]	122.6	.....	.....	.....
Salaries	$2,342,218	[2]$935,217	[3]	[3]	[3]	150.4	.....	.....	.....
Wage-earners, average number	57,008	42,978	18,803	12,920	2,378	32.6	128.6	45.5	443.3
Total wages	$20,092,738	$14,944,966	$5,683,027	$4,368,857	$543,684	34.4	163.0	30.1	703.6
Men, 16 years and over	25,595	19,071	6,435	3,864	1,101	34.2	196.4	66.5	251.0
Wages	$11,300,071	$8,430,625	[3]	[3]	[3]	34.0	.....	.....	.....
Women, 16 years and over	25,829	20,082	9,473	7,152	1,277	28.6	112.0	32.5	460.1
Wages	$7,831,109	$5,877,717	[3]	[3]	[3]	33.2	.....	.....	.....
Children, under 16 years	5,584	3,825	2,895	1,904	[4]	46.0	32.1	52.0	.....
Wages	$961,558	$636,624	[3]	[3]	[4]	51.0	.....	.....	.....
Miscellaneous expenses	$6,767,611	$4,917,760	[4]	[4]	[4]	37.6	.....	.....	.....
Cost of materials used	$77,075,222	$50,706,769	$22,013,628	$14,308,198	$2,442,775	52.0	130.3	53.9	485.7
Value of products	$120,314,344	$79,194,652	$33,549,942	$22,090,331	$3,701,378	51.9	136.1	51.9	496.8
Number of spindles	1,371,026	755,080	240,118	200,617	[4]	81.6	214.5	19.7	.....
Number of looms	26,372	19,095	14,411	6,128	[4]	38.1	32.5	135.2	.....
Number of combing machines	1,194	673	288	161	[4]	77.4	133.7	78.9	.....

[1] Decrease.
[2] Includes proprietors and firm members, with their salaries; number only reported in 1900, but not included in this table. (See Table 32).
[3] Not reported separately.
[4] Not reported.

The table reveals a continuous growth of the industry since 1870, notwithstanding the reduction in number of factories between 1870 and 1880. On the basis of the averages per establishment the comparison of growth from decade to decade is still more striking. In 1860 only the three large establishments previously referred to existed. Their capital as reported averaged over $1,000,000, with a consumption of materials exceeding $800,000, and a product averaging nearly $1,234,000. These same factories are carrying on the business to-day, and have had their influence in maintaining the average ratios in each of the other decades. The tabular statement following exhibits the averages in capital, cost of materials consumed, and value of product for each decade, but, because of the different methods of reporting the number of wage-earners, a similar statement of wages is not possible.

	1900	1890	1880	1870	1860
Establishments	186	143	76	102	3
Average capital employed	$710,581	$476,120	$267,080	$98,880	$1,076,666
Average cost of materials	$414,383	$354,593	$289,653	$140,276	$814,258
Average value of products	$646,851	$553,809	$441,447	$216,672	$1,233,793

The statement shows a steady increase per establishment in each of the items, and, in connection with the table preceding, emphasizes not only the growth of the industry as a whole, but the progressive growth of the individual establishments. In 1870 the capital employed was only $98,880 per establishment. In 1880 it had increased $168,200. In 1890 there had been a still further increase of $209,040, and in 1900 an additional increase of $234,461, so that in that year the average capital employed per establishment was $710,581. Similar gains, although not in so large a ratio, were made, both in materials used and in products, the first showing an increase from $140,276 in 1870 to $414,383 in 1900, and the other increasing from $216,672 to $646,851. A very interesting feature, which is more apparent in this statement than in the preceding table, is the fact that the relation of cost of materials to value of products varies but very slightly in the four census reports, being in each case very nearly in the ratio of 2 to 3.

Worsted Cloths.—The most important division in value, if not in quantity, of the worsted industry is the production of cloths for men's wear. As has been stated, this manufacture was not begun in the United States until about 1870. Several mills claim the distinction of being the first to produce such goods in this country, the Washington, at Lawrence, Mass., the Hockanum, at Rockville, Conn., and the Wanskuck, at Providence, R. I. The cost of the necessary machinery; the unsuitable character of domestic wools; the heavy duty on suitable foreign wools, preventing to some extent their importation; all tended to hamper the introduction and growth of this manufacture in the United States. In spite of adverse conditions, the industry took root and grew so rapidly that the quantity of all-wool worsted coatings, cassimeres, etc., for men's wear, manufactured in 1890, amounted to 17,591,087 square yards, valued at $22,386,452.

The result is seen in the splendid growth of the industry in the last decade from 143 establishments, with $68,085,116 capital and products valued at $79,194,652, in 1890, to an industry represented in 1900 by 186 establishments, with a capital of $132,168,110 and a production valued at $120,314,344.

The quantity of all-wool worsted coatings, suitings, overcoatings, etc., manufactured in 1900 was 54,910,812 square yards, valued at $43,570,940, which is three times the quantity of such goods made in 1890 and nearly twice the value. There were also manufactured 12,663,719 square yards of cotton-warp worsteds, valued at $7,267,508. The production of these goods in 1900 was about the same as in 1890. The importation of all

cloths for men's wear entered for consumption in the fiscal year ending June 30, 1900, was 4,860,777 pounds, having a duty-paid value of $9,743,384. They were high-class goods, averaging to cost, landed, about $2 per pound. As the Treasury reports of importations give the quantity of these goods in pounds, it is impossible to tell the yardage which these imports represent. Assuming, however, 12 ounces per square yard as a fair average, the importations for the year would represent 6,500,000 square yards, valued at about $1.50 per yard. These importations are nearly all worsted cloths, as very few woolen cloths are imported. How nearly the manufacturers of the United States come to supplying the home market is seen in the fact that the production of worsted suitings and overcoatings amounted to 67,574,531 yards, valued at $50,838,448, or more than 91 per cent of the total supply, as ascertained by combining the imports with the home production.

Dress Goods.—Men's wear goods are divided into the two general classes of woolens and worsteds, which are further subdivided into all-wool, cotton-warp, and cotton-mixed goods. The same divisions and subdivisions exist in the dress fabrics for women's wear. The quantities and values of each class are shown herewith:

DRESS GOODS MANUFACTURED IN 1900.

	WORSTED.		WOOLEN.	
	Square yards.	Value.	Square yards.	Value.
All wool	57,712,086	$16,316,392	33,597,692	$12,978,546
Cotton warp and cotton mixed	45,784,011	10,423,206	7,496,898	1,890,488
Total	103,496,097	26,739,598	41,094,590	14,869,034

	Square yards.	Value.
Total worsted dress goods	103,496,097	$26,739,598
Total woolen dress goods	41,094,590	14,869,034
Total dress goods	144,590,687	41,608,632

In addition to the above there were manufactured 11,176,752 square yards of sackings, tricots, opera flannels, etc., all of which are practically dress goods or used for the same purpose, valued at $3,669,584, making the total of fabrics for women's wear 155,767,439 square yards, with a value of $45,278,216.

Worsted Dress Goods.—The production of worsted dress goods is much the most important part of the dress goods manufacture. In 1860 the 3 mills engaged in the business produced goods to the value of $3,701,378, for which no quantity was reported. At the census of 1900 the production of worsted dress goods was reported at 103,496,097 square yards, having a total value of $26,739,598. Of these 57,712,086 square yards were made entirely of wool, and 45,784,011 square yards of wool weft with a warp of cotton, or vice versa. The value of all wool fabrics was $16,316,392, and of the cotton warps $10,423,206. In 1890 the production of worsted dress goods was 73,907,259 square yards, valued at $16,328,836, divided as follows: All wool, 11,349,319 square yards, $3,905,398; cotton warp, 62,557,940 square yards, $12,423,438. The increase in production of the worsted goods in the decade has therefore been 40 per cent in quantity and 63.8 per cent in value.

Woolen Dress Goods.—The quantity of fabrics tabulated as all-wool dress goods is 33,597,692 square yards, valued at $12,978,546. Of cotton warp, wool-weft dress goods the manufacture amounted to 7,496,898 square yards; to this should be added the sackings, tricots, and opera flannels named above, which make the production of cotton-warp dress goods for women's wear 18,673,650 square yards, valued at $5,560,072, and the total production of woolen dress fabrics 52,271,342 square yards, with a value of $18,538,618. The production of all-wool dress goods in 1890 was 25,237,390 square yards, valued at $9,014,477; of cotton warps, 17,655,803 square yards, $4,274,012; and of union or cotton mixed sackings, etc., 9,892,377 square yards, $2,532,598; making the total production of woolen goods for women's wear in 1890, 52,785,570 square yards, valued at $15,821,087.

In these fabrics, therefore, the quantity produced varies but little, being 514,228 square yards less than ten years earlier, but the value has increased $2,717,531, or 17.2 per cent.

The total production of dress fabrics in 1890 amounted to 127,259,709 square yards, and in 1900 to 155,767,439 square yards, the value being $32,285,906 in 1890, and $45,278,216 in 1900.

The gain in production was therefore 22.4 per cent in quantity and 40.2 per cent in value. The greater percentage of increase in value over the increase in quantity indicates the production of a higher grade of goods. The manufacturers of the United States are competing successfully with those of England and France in meeting the demands of the American market for these fabrics. The various changes in the tariff during the decade, and the resulting different methods of reporting the quantities of importations of dress goods, make it impossible to present a satisfactory table showing these imports, for during the existence of the tariff of 1894 all dress goods were reported in pounds, and a reduction to the square yard is made on a purely arbitrary basis. In the following table the standard used in the census of 1890—4.5 ounces to the square yard—is adopted for all such goods imported by weight under the tariffs of 1890 and 1897. Under the law of 1894 the light-weight dress goods, as well as the heavier goods, were assessed for duty on the pound basis. The standard of 4.5 ounces is therefore not suitable for these importations. A standard of 4 ounces to the square yard will not be greatly out of the way for an estimate of the quantity of dress fabrics imported under that law. The table thus prepared shows the foreign values, and the estimated quantities of dress goods imported in the last two decades.

IMPORTS OF DRESS GOODS ENTERED FOR CONSUMPTION, 1881 TO 1900, INCLUSIVE.

YEARS.	Square yards.	Value.
1881	61,990,172	$15,961,066
1882	93,772,856	19,070,817
1883	93,920,152	22,619,106
1884	63,831,494	15,349,097
1885	41,491,520	14,197,987
1886	67,346,150	14,971,277
1887	76,871,189	17,199,141
1888	85,504,490	18,742,493
1889	93,261,526	19,793,253
1890	107,915,289	22,668,293
Total	785,904,838	180,572,530
1891	91,874,084	19,559,983
1892	76,575,126	16,630,371
1893	86,757,355	17,821,574
1894	40,656,267	8,647,258
1895	67,719,063	14,505,778
1896	96,458,868	19,494,268
1897	95,120,674	18,187,846
1898	28,213,947	5,798,213
1899	27,808,376	6,038,950
1900	25,905,693	5,895,820
Total	637,089,453	132,580,061
Annual average 1881–1890	78,590,483	18,057,253
Annual average 1891–1900	63,708,945	13,258,006

Assuming that the annual average importation for the decade is a fair representation of the imports, and adding the domestic production, the total annual consumption of these goods amounts to 219,476,384 square yards. By a similar calculation it appears that the quantity consumed in 1890 was 205,850,192 square yards, and the increase of 1900 over 1890, 6.6 per cent. The domestic manufacturers were able to supply in 1890, 62 per cent of the requirements of the people of the United States, while in 1900 they supplied over 71 per cent of the fabrics needed. The average value per square yard of all dress goods of domestic production is 29.07 cents, and the foreign value of the imported dress goods for the year last shown averages 22.76 cents per square yard and the duty-paid value 41.47 cents. These facts indicate that at the present time the mills here supply the demands of the American public for the great mass of dress goods, and that the so-called "novelties," goods with fancy effects produced in the weave or coloring, furnish the most of these imports.

BRAIDS.

Braids, as known to the wool manufacture, are made both from woolen and worsted yarns, but mostly from the latter. They are used for bindings and for trimmings, for which many fancy braids are made. The braid manufacture was established in this country by Darius Goff, at Pawtucket, R. I., in 1861, where the business is still carried on by his successors. During the decade the business has grown from 11 establishments, with a production of $1,264,622, to 17 establishments, producing $2,264,661. In 1900 they were located as follows: 9 in New York, 4 in Pennsylvania, 2 in Massachusetts, and 2 in Rhode Island. Of the number of braiders reported, which number has increased from 10,750 to 15,086, New York has 9,628, Pennsylvania 2,258, and Massachusetts and Rhode Island 3,200. New York manufactures nearly one-half of the braids, her product amounting to $1,092,713. No attempt is made to present the quantity of braids manufactured, because there is no standard width. As they range from one-fourth inch to 3 or more inches wide, a statement by running yards would convey but little meaning.

PLUSHES AND PILE FABRICS.

The manufacture of plushes and pile fabrics has become a very important part of the worsted industry, and is conducted chiefly in Maine, Rhode Island, Connecticut, and Pennsylvania; but the statistics are not so segregated that a separate statement can be made.

CLASS III.—CARPETS AND CARPETING.

The carpet manufacture is one of the most important branches of the wool manufacturing industry. It dates back in this country to the last years of the Eighteenth century. The earliest record of it is that W. P. Sprague opened a carpet manufactory in 1791 in Philadelphia. In 1820 carpets woven by hand are reported as being made in Rhode Island, New York, and Maryland; these were probably rag carpets. Alexander Wright, a Scotchman, started a small mill in Medway, Mass., in 1825, with hand looms which he brought from Scotland. This mill passed into the hands of the Lowell Manufacturing Company, then recently organized, and on the completion of their mill at Lowell, Mass., the machinery was moved there. These are the beginnings of a manufacture which, in a little more than a century, has become one of the leading industries of the country. It now finds employment for millions of capital, gives remunerative occupation to thousands of operatives, and produces millions of dollars worth of fabrics which add to the comfort and cater to the tastes of the American people.

It is to the inventive genius and the business ability of Erastus B. Bigelow, of Boston, Mass., more than to any other man, that the carpet industry of the world owes its great prominence. He first, in 1844, adapted the power loom to the weaving of ingrain carpets. A few years later he invented and patented the power loom for weaving Jacquard Brussels and Wilton carpets. To him also are due the inventions for weaving tapestry Brussels and tapestry velvet carpets. Alexander Smith and Halcyon Skinner, of Yonkers, N. Y., obtained in 1856 a patent for a power loom for weaving Axminster carpets, which, however, was not utilized till 1867. These inventions are the foundation of the modern carpet manufacture. It is only a little more than ten years since the power loom was applied to the manufacture of Smyrna carpets and rugs, and a largely increased output has been the result. Table 17 presents the principal statistics of the carpet manufacture since 1850, when it first appeared in the census records.

TABLE 17.—CARPETS AND RUGS, OTHER THAN RAG: COMPARATIVE SUMMARY, 1850 TO 1890, WITH PER CENT OF INCREASE FOR EACH DECADE.

	DATE OF CENSUS.						PER CENT OF INCREASE.				
	1900	1890	1880	1870	1860	1850	1890 to 1900	1880 to 1890	1870 to 1880	1860 to 1870	1850 to 1860
Number of establishments	133	173	195	215	213	116	[1] 23.1	[1] 11.3	9.3	0.9	83.6
Capital	$44,449,299	$38,208,842	$21,468,587	$12,540,750	$4,721,768	$3,852,981	16.3	78.0	71.2	165.6	22.5
Salaried officials, clerks, etc., number	687	[2] 385	[3]	[3]	[3]	[3]	78.4	.....	.....	.....	.....
Salaries	$881,398	[2] $510,857	[3]	[3]	[3]	[3]	72.5	.....	.....	.....	.....
Wage-earners, average number	28,411	28,736	20,371	12,098	6,681	6,186	[1] 1.1	41.1	68.4	81.1	8.0
Total wages	$11,121,383	$11,122,259	$6,835,218	$4,681,718	$1,545,692	$1,246,560	[5]	62.7	46.0	202.9	24.0
Men, 16 years and over	13,860	13,655	10,104	6,808	3,910	3,881	1.5	35.1	48.4	74.1	0.7
Wages	$6,651,180	$6,510,457	[3]	[3]	[3]	[3]	2.2	.....	.....	.....	.....
Women, 16 years and over	12,468	13,076	8,570	4,316	2,771	2,305	[1] 4.6	52.6	98.6	55.8	20.2
Wages	$4,113,142	$4,248,249	[3]	[3]	[3]	[3]	[1] 3.2	.....	.....	.....	.....
Children, under 16 years	2,083	2,005	1,697	974	[3]	[3]	3.9	18.2	74.2	.....	.....
Wages	$357,061	$363,553	[3]	[3]	[3]	[3]	1.8	.....	.....	.....	.....
Miscellaneous expenses	$2,751,879	$1,819,411	[4]	[4]	[4]	[4]	51.3	.....	.....	.....	.....
Cost of materials used	$27,228,719	$28,644,905	$18,984,877	$13,577,993	$4,417,986	$3,075,592	[1] 4.9	50.9	39.8	207.3	43.6
Value of products	$48,192,351	$47,770,193	$31,792,802	$21,761,573	$7,857,636	$5,401,234	0.9	50.3	46.1	177.0	45.5
Number of looms	12,511	11,235	7,252	5,426	[4]	[4]	11.4	54.9	33.7	.....	.....

[1] Decrease.
[2] Includes proprietors and firm members, with their salaries; number only reported in 1900, but not included in this table. (See Table 33.)
[3] Not reported separately.
[4] Not reported.
[5] Less than one-tenth of 1 per cent.

The table shows not only the growth of the industry, but also the tendency toward combination of capital and centralization of industries; beginning in 1850 with 116 establishments and $3,852,981 capital, it increased in twenty years to 215 establishments with a capital of $12,540,750. Since then each census report has shown a decreased number of factories[1] and an increased capital. At this time the number has been reduced to nearly the original number of 1850, but the capital is nearly twelve times the amount employed in that year. The number of wage-earners and the amount paid in wages vary but little in the reports of the census of 1900 from the corresponding statements of the one preceding. The number of sets of cards employed has increased from 392 to 468 and the number of combs from 118 to 134, but the number of spinning spindles employed in the carpet mills shows a decrease of 41,735, which is wholly in worsted spindles. The woolen and cotton spindles each show an increased number. In 1890 there were 151,132 worsted spindles, but in 1900 only 97,191 were reported as in operation. The following tabular statement shows the number of looms, both hand and power, employed on each variety of carpets in 1900 and 1890, and also the transfer of manufacturing forces from hand to power looms in the decade, and from one kind of carpet to another. The total number of looms employed in the carpet mills was 12,511, an increase of 1,276 over 1890. Of these looms 1,757 were engaged in the production of woolen or worsted cloth, leaving 10,754 looms for the carpet manufacture, which is 144 less than was shown in 1890. The ingrain carpet manufacture employed 4,693 looms; 1,835 were engaged on tapestry Brussels, velvets, and rugs; 544 on Brussels; 507 on Wiltons; 761 on Axminster and Moquettes; and 80 on Venetian carpets. The 955 hand looms and 1,358 power looms engaged in the rug manufacture were included in the total number of carpet looms.

The number of hand looms was about two-fifths of the number employed in 1890, and the decrease was almost the same numerically as the increase in power looms. The changes from Brussels to tapestry velvet looms, and from body Brussels to Wilton and Axminster, do not necessarily indicate a throwing out of looms of either class and their replacement by others, but simply the change of product of the looms, only slight alterations being necessary to adapt a tapestry Brussels loom for making tapestry velvet, or a body Brussels for making Wiltons.

[1] 1870 showed 2 more establishments than 1860.

LOOMS IN CARPET MANUFACTORIES, 1890 AND 1900.

YEAR.	Total all looms.	Total all looms on carpets.	CARPET LOOMS.		INGRAINS.				VENETIAN.	
					Hand.	Power.	Broad.			
			Hand.	Power.			Hand.	Power.	Hand.	Power.
1900	12,511	10,754	1,048	9,706	92	4,354	1	246	.....	80
1890	11,235	10,898	2,598	8,300	631	4,214	.....	.....	157	109

YEAR.	TAPESTRY.		Body Brussels, power.	Wilton, power.	Axminster, power.	Moquette, power.	RUG.		LOOMS ON WOOLEN GOODS.		
	Brussels, power.	Velvet, power.					Hand.	Power.	Broad.	Narrow.	Hand.
1900	1,094	737	544	507	611	150	955	1,383	814	897	46
1890	1,498	58	1,224	62	95	462	1,810	578	194	44	99

Materials Consumed.—The cost of materials used, which amounted in 1900 to $27,228,719, against $28,644,905 in 1890, shows a small reduction, 4.9 per cent, but this arises from reduced prices and changes in character of materials used, and not from lessened quantity, as shown in the following table:

QUANTITIES OF MATERIALS USED IN THE CARPET MANUFACTURE: 1900 AND 1890.

	1900	1890
Foreign wool used:		
Pounds	51,761,523	54,742,234
Cost	$8,077,420	$9,422,031
Domestic wool used:		
Pounds	109,811	2,139,332
Cost	$26,687	$433,756
Scoured wool, pounds	37,560,231	35,726,837
Hair, all kinds, pounds	6,189,757	4,647,025
Cotton, pounds	1,943,942	1,725,761
Shoddy, etc., pounds	744,233	598,512
Waste, noils, etc., pounds	2,525,054	892,548
Woolen yarn, pounds	32,996,316	18,763,201
Worsted yarn, pounds	9,218,267	10,555,799
Mixed yarn, pounds	237,970	.....
Cotton yarn, pounds	19,823,561	17,920,498
Linen yarn, pounds	8,388,211	9,719,242
Jute and other yarns, pounds	39,034,827	23,852,517

The total quantity of materials used, including wool "in condition purchased," was 172,973,472 pounds, as compared with 145,556,669 pounds in 1890, an increase of 27,416,803 pounds in all, equal to 18.8 per cent. The quantity of wool in condition purchased was 5,010,232 pounds less than was used in 1890, but this wool when scoured shows a smaller amount of shrinkage than appeared in 1890, so that the quantity of clean wool used exceeded the quantity used in 1890 by 1,833,394 pounds. In addition to the scoured wool, 1,750,913 pounds of other fibers in the raw state were used in 1900 in excess of the quantity used in 1890, and 12,895,583 pounds more of woolen and worsted yarns and 15,992,312 pounds more of other yarns, manufactured in other mills, were used than were used ten years previously. The total quantity of purchased yarns used in 1900 was 109,699,152 pounds. In 1890, 80,811,257 pounds of yarns were used.

Production. The production has likewise experienced a continuous growth. In 1850 the mills produced goods to the value of $5,401,234, using materials costing $3,075,592. Each decade has seen an increase in value of product; at the census of 1900 the production had increased to $48,192,351, and the cost of materials used to $27,228,719. It is true that the value of products is but slightly more than the similar amount in 1890, but the production of carpets, measured in running yards, the yard-wide and the three-quarter goods being all counted together, was 760,917 yards in excess of the production of that year. The following statement, in which the figures for 1880 are also included, furnishes the data for a more correct estimate of the actual relative production of the two periods:

QUANTITY AND KIND OF CARPETS PRODUCED, 1880 TO 1900.

DATE OF CENSUS.	Total carpets, running yards.	Ingrain, 2-ply, square yards.	Ingrain, 3-ply, square yards.	Ingrain, art, square yards.	Venetian, running yards.	Body Brussels, running yards.	Tapestry Brussels, running yards.	Tapestry velvet, running yards.
1900	75,531,827	36,698,292	3,222,557	2,328,906	.....	3,581,991	11,649,932	5,706,754
1890	74,770,910	32,918,659	3,251,368	553,513	.....	9,442,348	20,008,961	2,482,128
1880	39,282,634	21,986,434	862,394	.....	1,984,201	4,077,190	9,441,195	60,000

DATE OF CENSUS.	Wilton and Wilton velvet, running yards.	Axminster, running yards.	Moquette, running yards.	Smyrna, square yards.	Cottage, square yards.	Dutch, square yards.	Rag, square yards.	All other, square yards.
1900	4,782,835	5,074,961	1,627,410	858,189	.....	.....	.....	.....
1890	1,030,101	379,341	3,193,186	127,177	.....	.....	71,310	1,312,818
1880	157,629	303,366	.....	.....	241,220	12,000	157,005	.....

The comparative production of each of the two great divisions of the manufacture is as follows: The number of yards of ingrain carpets, which includes all the 2 and 3 ply carpets and ingrain art squares, which amounted to 36,723,540 square yards in 1890, in 1900 amounted to 42,249,755 square yards, an increase of 5,526,215 square yards; the number of running yards of all three-quarter carpets, that is, the tapestries, Brussels, Wiltons, etc., which in 1890 was 36,536,065 yards, in 1900 showed a reduction to 32,423,883 yards, a falling off of 4,112,182 running yards. By reducing the three-quarter goods to the square-yard measurement, a uniform standard is reached, by which a comparison of the total yardage of the manufacture can be obtained, except that in 1890 the report of the manufacture of rugs was made in number of individual rugs, while at the census of 1900 the report was made in square yards. If rugs are reported in square yards hereafter, there will be no difficulty in making comparisons of the total production of these mills by quantity.

The production of three-quarter wide carpet in 1890 was 36,536,065 running yards, equal to 27,402,049 square yards. In 1900 the production of similar carpets was 32,423,883 running yards, equal to 24,317,912 square yards. The total production of carpets, therefore, aside from the quantities of rugs manufactured and Smyrna carpets reported as rugs, was equal to 64,125,589 square yards in 1890 and 66,567,667 square yards in 1900, an increase of 2,442,078 square yards.

In addition to the carpets produced, there were 8,984,194 square yards of rugs made, which makes the total carpets and rugs manufactured, as reported at the Twelfth Census, 75,551,861 square yards. There has

been a very great increase in the production of rugs. In 1890 the value of all rugs, not including the Smyrna carpets, was $2,628,781; in 1900 it had increased to $5,948,898, a gain of $3,320,117. The total value was nearly one-eighth of the total value of the products of the carpet mills, and indicates the greatly increased use of rugs for floor coverings. In 1890 the value of rugs manufactured was less than one-fourteenth part of the total value of the carpet-mill productions.

The following are the statistics of the rug manufacture, the value being given for both 1890 and 1900. In 1890 rugs were reported in number of pieces, but in 1900 the report was made in square yards.

COMPARATIVE STATEMENT OF RUGS MANUFACTURED, 1900 AND 1890.

	1900	1890
Total:		
Square yards	5,984,194	[1] 1,565,303
Value	$5,948,898	$2,628,781
Tapestry:		
Square yards	1[illegible],750	.....
Value	$9,000	.....
Wilton:		
Square yards	339,784	[1] 40,644
Value	$545,967	$87,702
Moquette and Axminster:		
Square yards	327,598	[1] 60,000
Value	$342,262	$66,000
Ingrain:		
Square yards	393,417	[1] 6,278
Value	$168,324	$34,262
Smyrna rugs:		
Square yards	2,793,472	[1] 1,429,536
Value	$2,491,911	$2,367,000
Other rugs:		
Square yards	5,111,173	[1] 28,845
Value	$2,391,434	$73,817

[1] Quantities in 1890 are all by numbers of pieces instead of square yards.

The change in fashion for floor coverings is well illustrated by the change in the character of the carpets manufactured. In the tapestry Brussels the production has fallen off 8,359,029 yards, but in the tapestry velvets it has increased 3,224,626 yards. The production of body Brussels carpets has been reduced 5,860,357 yards, but the Wiltons, Axminster, and Moquette have increased 6,882,578 yards. In the cut pile carpets there also is a change, the Moquette, which in 1890 was an exceedingly popular carpet, has fallen off 50 per cent in quantity of product while the Axminsters have increased from 379,341 to 5,074,961 yards. The Wiltons also have become popular, and the manufacture has grown from a small beginning in 1880 to 1,030,101 yards in 1890, to 4,782,835 yards in 1900. The favor in which the various velvet or cut pile carpets are held and the fashion for hard-wood floors, for which ingrain carpets and art squares form a suitable covering, accounts to a great extent for the reduction in the quantity of tapestry and body Brussels carpets, as compared with the previous census.

The location of the industry was the same in 1900 as in 1890, principally in the states of Pennsylvania, New York, Massachusetts, and New Jersey, which ranked in amount of capital employed and value of products in the order named. There were important factories in other states, especially in Connecticut; but as these states have only one or two establishments each, their statistics are not separately stated. Pennsylvania was the chief seat of the industry, centered in Philadelphia and its suburbs, employing about three-eighths of the capital invested and producing nearly one-half of the total value of carpets and rugs manufactured. Out of 4,693 ingrain looms engaged, 3,737 were in this state, which also possessed 537 of the 1,831 tapestry Brussels and tapestry velvet looms in the country, and 1,220, or more than half, of the Smyrna looms. New York had 1,057 of the tapestry looms and Massachusetts 217. Of the 1,812 Brussels, Wilton, and similar looms for the manufacture of the highest grades of carpets, Massachusetts possessed 752, New York 542, and Pennsylvania 267. In the manufacture of Smyrna carpets and rugs New Jersey was next to Pennsylvania, having 794 looms, and was followed by New York with 295 looms. New York and Massachusetts, therefore, were the great producers of the higher grades of carpets, while Pennsylvania and New Jersey were the homes of the more common ingrain carpet and the art squares as well as the Smyrna rug.

The imports of carpets and rugs for the fiscal year 1900 amounted to only 820,731 square yards, having a foreign value of $2,555,620. Of these importations, 640,111 square yards were rugs of high quality, either Aubusson, Axminster, or rugs of similar character, or the oriental rugs, all articles of luxury, and were valued at $2,329,106 abroad. The American carpet manufacturers, it is evident, have complete control of the home market, and are able to supply all the needs of the American people.

CLASS IV.—FELT GOODS.

The following table presents a summary of the felt-goods industry for the census years 1880, 1890, and 1900, with per cent of increase for each decade:

TABLE 18.—FELT GOODS: COMPARATIVE SUMMARY, 1880 TO 1900, WITH PER CENT OF INCREASE FOR EACH DECADE.

	DATE OF CENSUS.			PER CENT OF INCREASE.	
	1900	1890	1880	1890 to 1900	1880 to 1890
Number of establishments	36	34	26	5.9	30.8
Capital	$7,125,276	$4,460,621	$1,958,254	59.7	127.8
Salaried officials, clerks, etc., number	136	[1] 124	[2]	9.7	.....
Salaries	$231,065	[1] $157,916	[2]	46.3	.....
Wage-earners, average number	2,688	2,142	1,524	25.5	40.6
Total wages	$1,024,835	$883,380	$439,760	16.0	100.9
Men, 16 years and over	1,957	1,474	1,203	32.8	22.5
Wages	$820,637	$721,796	[2]	13.7	.....
Women, 16 years and over	658	506	233	30.0	117.2
Wages	$191,090	$134,273	[2]	42.3	.....
Children, under 16 years	73	162	88	[3] 54.9	84.1
Wages	$13,108	$27,311	[2]	[3] 52.0	.....
Miscellaneous expenses	$356,164	$232,871	[4]	52.9	.....
Cost of materials used	$3,801,028	$2,809,937	$2,530,710	35.3	11.0
Value of products	$5,461,691	$4,654,768	$3,619,652	38.8	28.6
Number of spindles	24,286	13,829	[4]	75.6	.....
Number of looms	284	210	[4]	35.3	.....

[1] Includes proprietors and firm members and their salaries; number only reported in 1900, but not included in this table.
[2] Not reported separately.
[3] Decrease.
[4] Not reported.

In number of establishments its growth in the last decade has been small, but in other respects its development has been large. The capital increased 59.7 per cent, the cost of materials used 35.3 per cent, and the value of products 38.8 per cent. The principal products were felt cloths, boot and shoe linings, upholstery felts, trimmings and lining felts, felt skirts, and endless belts for paper-making machines. Many of the productions of the felt manufacture can not be measured in yards, but can be reported only in pieces or pounds. One-third in value of the products of these mills in 1900 was of this class, comprising slippers and shoes, polishing felts and wheels, piano keys, and an endless variety of other goods. The quantity of felt cloths manufactured in 1900 was about the same as in 1890, but in boot and shoe linings the quantity was only 1,052,538 square yards, about half of the product of 1890. Endless belts for printing machines increased from 216,982 to 1,114,357 square yards, while trimmings and lining felts increased from 1,176,114 square yards in 1890 to 2,469,830 in 1900.

CLASS V.—WOOL HATS.

The wool-hat manufacture is properly a part of the felt industry, the hats being made by a process of felting, and are thus distinguished from the ordinary products of the loom. The process of wool-hat making is very simple and yet very ingenious. The wool, as it comes from the card in a continuous lap, is wound upon a machine consisting of two cones placed base to base and revolving upon an axis placed parallel to the end of the card. The double cone is so rotated that the continuous lap of wool is wound in a zigzag manner, crossing and recrossing from end to end. When a sufficient quantity of wool has been received, the machine is stopped, the double cone of wool is divided in the center, the two resulting hat bodies removed for felting, and the process repeated. From the time the hat leaves the cone until it is ready for the market each hat is the subject of individual treatment, and it is only by the subdivision of the various processes of felting, dyeing, stiffening, blocking, finishing, and trimming, and the distribution of the work among many hands, that it is possible for the comparatively few hat factories to supply the demand. As is stated elsewhere in this report, the fur-hat manufacture has interfered very seriously with the manufacture of wool hats.

The following table shows the statistics of the wool-hat manufacture at the censuses of 1880, 1890, and 1900, with per cent of increase for each decade:

TABLE 19.—WOOL HATS: COMPARATIVE SUMMARY, 1880 TO 1900, WITH PER CENT OF INCREASE FOR EACH DECADE.

	DATE OF CENSUS.			PER CENT OF INCREASE.	
	1900	1890	1880	1890 to 1900	1880 to 1890
Number of establishments	24	32	43	[1]25.0	[1]25.6
Capital	$2,050,802	$4,142,224	$3,615,830	[1]50.5	14.6
Salaried officials, clerks, etc., number	57	[2]92	(3)	[1]38.0	.....
Salaries	$66,766	[2]$113,968	(3)	[1]41.4	.....
Wage-earners, average number	2,108	3,500	5,470	[1]39.8	[1]36.0
Total wages	$937,855	$1,249,976	$1,893,215	[1]25.0	[1]34.0
Men, 16 years and over	1,358	2,220	3,222	[1]38.8	[1]31.1
Wages	$727,253	$980,030	(3)	[1]25.8	.....
Women, 16 years and over	651	1,121	1,459	[1]41.9	[1]23.2
Wages	$195,395	$251,661	(3)	[1]22.1	.....
Children, under 16 years	99	159	789	[1]37.7	[1]79.8
Wages	$14,607	$18,285	(3)	[1]20.1	.....
Miscellaneous expenses	$185,644	$249,568	(4)	[1]25.6	.....
Cost of materials used	$2,642,202	$2,802,041	$4,785,774	[1]27.1	[1]41.4
Value of products	$3,591,940	$5,329,921	$8,516,569	[1]32.6	[1]37.4

[1] Decrease.
[2] Includes proprietors and firm members, with their salaries; number only reported in 1900, but not included in this table.
[3] Not reported separately.
[4] Not reported.

Making no reference to the condition of the industry in 1880, it will be seen that since 1890 the number of establishments has fallen off 25 per cent, the capital 50.5 per cent, the cost of materials used 27.1 per cent, and the value of products 32.6 per cent. In all the various items of expense there has been a similar reduction. There has not, however, been so large a decrease in the wool-hat industry as the items named would seem to indicate. In 1890, 972,375 dozen wool hats were manufactured, valued at $4,611,851; in 1900 the number of dozens is 811,425, valued at $3,161,361, so that a very considerable part of the loss is attributable to reduced value per unit of quantity.

The wool-hat manufacture is so closely allied to the manufacture of fur hats that it was thought best to secure the returns of the latter industry in connection with those of the wool manufacture. The reports, however, are tabulated separately, and are not included in any of the tables pertaining to that industry. The detailed statistics for the fur-hat manufacture will be found in Table 40, which follows the general tables belonging to the other industry. A brief history, with a general statement of the process of manufacture and the progress of the industry, is presented in connection with the report on wool hats.

THE FUR HAT MANUFACTURE.

Until the census of 1900 no attempt was made to obtain a separate statement of the statistics for the fur-hat manufacture. They had been included with those of hats and caps, not including wool hats. In 1890 the value of all hats and caps reported, except wool hats, was $37,311,599, the production of which gave employment to 25,931 wage-earners, receiving $12,650,917 in wages. Capital amounting to $13,724,002 was invested in the business, and the material consumed was valued at $16,160,802. The capital employed in the manufacture of all these classes of head coverings was $3,000,000 less in 1890 than was invested in the fur-hat

manufacture alone in 1900. The cost of materials used in 1900 was within $3,000,000 of the cost shown for the hat and cap industry in 1890, and the value of products was not quite $10,000,000 less than the total for hats and caps, except wool hats, for 1890. The following is a summary of the statistics of the fur-hat industry for 1900:

TABLE 20.—FUR HATS: SUMMARY FOR 1900.

Number of establishments	171
Capital	$16,701,308
Salaried officials, clerks, etc., number	726
Salaries	$943,998
Wage-earners, average number	18,880
Total wages	$9,119,264
Men, 16 years and over	13,187
Wages	$7,231,777
Women, 16 years and over	5,436
Wages	$1,840,454
Children, under 16 years	257
Wages	$47,033
Miscellaneous expenses	$1,416,737
Cost of materials used	$13,513,668
Value of products	$27,811,187

The total number of establishments engaged in the industry was 171, located 59 in New Jersey, 58 in Connecticut, 20 in Pennsylvania, 15 in New York, 11 in Massachusetts, and 8 in other states. The capital employed was distributed in the various states as follows: Pennsylvania, $5,726,259; Connecticut, $3,197,551; New York, $3,050,381; New Jersey, $2,932,311; Massachusetts, $1,467,700; all others, $327,106. In number of wage-earners the order was: Connecticut, New Jersey, New York, Pennsylvania, Massachusetts. In amount of wages New Jersey led, and Connecticut, New York, Pennsylvania, and Massachusetts followed in the order named. New Jersey reported the manufacture of 590,939 dozen fur hats, valued at $6,773,402; Connecticut, 497,683 dozens, valued at $6,543,736; New York, 226,061 dozens, valued at $5,052,570; Pennsylvania, 280,880 dozens, valued at $4,203,169; Massachusetts, 227,032 dozens, valued at $2,244,941; and all other states, 59,777 dozens, valued at $567,688. The total number of dozens made was 1,882,372, and the value $25,385,506. The average value per dozen was within a fraction of $13.50, but, as the preceding statements show, there is a wide range in value. The New York manufacture shows the highest average value, $22.35, and Massachusetts the lowest, $9.88.

The material from which fur hats are made is the fur of the rabbit, coney, and nutria, and is mostly imported, sometimes on the skin, but more often cut. There are some large fur-cutting establishments in the United States, and some of the most important fur-hat factories cut their own fur. The finest fur comes from Germany, where it is cut from skins brought thither from various places. After the skins have been properly opened and stretched, and the hairs removed by pulling, they are subjected to a process called "carroting," an application of mercury and nitric acid, which causes the fur fibers to hold together. The separation of the fur from the skin is accomplished by cutting the skin into shreds, by means of rapidly revolving shear blades, fixed just below a table, but so adjusted that as the skin passes under a roller or guide fixed above the shear blade, the skin is cut into shreds and drops beneath the machine. The fur, without the apparent displacement of a fiber, passes on to the other side of the roller, whence it is removed and packed away until required.

Until 1846 the making of fur hats was carried on entirely by hand. In 1835 a machine for stiffening hat bodies by immersing them in solutions of different strength and afterwards pressing them between rollers was patented by Henry Blynn, of Newark, N. J. In 1837 Thomas Blanchard patented a process of forming bats for fur hats by means of a rapidly rotating picker brush, which disintegrated the materials and threw them upon an endless apron or band of fine wire cloth by means of a current of air, produced by an exhausting fan beneath the apron. The thin, narrow ribbon or web thus formed was wound upon a double cone of a size to form two hat bodies. The machine was not successful in practice.

The first process in manufacturing hats is the mixing of various kinds or qualities of fur to produce the quality of hat wanted, which is done by a machine called a "devil," in which the fibers are pulled apart and thoroughly mingled. It is then taken to the blowing machine, where it is kept constantly agitated in a light current of air. The matted pieces, if any, and such pieces of skin as there may be with fur attached, together with the hair and dirt thrown out from the fine fur, drop through a set of sieves which separate the valuable pieces of fur for further treatment. The blowing process continues until the fur is perfectly free from all extraneous matter, when it leaves the machine in a lap, fine and soft, but so light and filmy that it hardly bears the touch.

The hat-forming process comes next in order. The fur as it comes from the blower is weighed out into boxes, each containing a sufficient quantity for one hat, according to the weight and quality of hat to be made, the usual range being from two to six ounces per hat. These boxes of fur are conveyed to a machine, called a "former," which consists of a revolving cone, made of brass or copper of suitable size for the hat body. This cone is pierced with innumerable small holes, through which a current of air is drawn by means of an exhausting fan.

There is also an arrangement by which minute jets of hot water are thrown upon the newly formed hat body to give it a sufficient consistency to permit its removal from the cone.

The process is as follows: The fur is fed through a tube to a revolving cylinder which thoroughly opens and distributes the fur; at the same time the former is set in motion and the current of air produced by the fan draws the fur into the machine and spreads it evenly over the surface of the cone, which during the operation is inclosed in a tight box. When the fur is properly distributed the box is opened and the jets of water are thrown upon the fur, and the embryo hat, upon which a cloth has been spread for its protection, is removed by hand. The whole operation takes but two or three minutes. It is then rolled and pressed, first by hand, when in its more delicate condition, and afterwards by machinery, to felt it and reduce it to its proper proportions. In the meantime it has been sized to add to its strength and durability. The hat now receives an application of shellac dissolved in alcohol to stiffen it. A much stronger solution is required for a "derby" than for a soft hat. Thus far the hat has retained its conical form. The next process gives it a shape in which it is recognizable as a hat. It consists of pressing it in a mold, composed of a block and a matrix, which shapes both the crown and the brim. The next step is that of dyeing, in which the rough hat receives its final color. Blocking comes next, which fixes the hat in the form desired, the previous pressing having only shaped it. Pouncing, which is a process of sandpapering to remove inequalities, follows, and is accomplished by placing the hat on a rapidly revolving block, a device of Mr. John T. Waring, in 1853, and rubbing the surface with fine emery paper; at the same time any hairs that may have been left in the fur are removed or cut off and a slight nap is raised, which is ironed so that it all lies in one direction. The trimmings—that is, the sweat band, the lining and the ribbon and binding—are now attached, and the hat is again blocked and the rim given its shape. Formerly all of this work was done by hand, beginning with the process of "blowing," by which the same result was obtained that is now reached by the blower. The inventions of Thomas Blanchard, H. A. Wells, and John T. Waring, with minor modifications and improvements, are the foundation of the machine manufacture of fur hats.

The history of the fur hat manufacture has never been adequately presented. Special effort has been made at this time to prepare such a statement as the importance of the subject demands, but the only sources of information which have been found are Bishop's "History of American Manufactures," and the "Report on Manufactures for the Eighth Census." The industry in the United States dates back to the very early days of the colonies. In 1662 the assembly of Virginia enacted a number of laws for the encouragement of manufactures. Among other premiums offered was one of 10 pounds of tobacco for every good wool or fur hat made within the colony. In 1675 laws were passed prohibiting the exportation of raccoon furs from the provinces. In 1731 Jeremiah Dunbar, surveyor-general of His Majesty's woods, reported respecting the manufacture of hats: that it was with the greatest difficulty they were able to procure true information of the trade and manufactures of New England. The company of felt makers in London petitioned Parliament in 1731 to prohibit the importation of hats from the American colonies. A special committee, to which the petition was referred, reported that in New York and New England beaver hats were manufactured to the estimated number of 10,000 yearly. There were 16 hatters in Boston, one of whom furnished 40 hats weekly.

The British Board of Trade, in their report in 1732, made in pursuance of an inquiry "with respect to laws made, manufactures set up, or trade carried on detrimental to the trade, navigation, or manufactures of Great Britain," found that "great quantities of hats are made in New England," and that "great quantities of these hats are exported to Spain, Portugal, and our West India Islands." In consequence of this evidence, an act was passed that "no hats or felts, dyed or undyed, finished or unfinished, should be put on board any vessel for any place within any of the British plantations, nor be laden upon any horse, or other carriage, to the intent to be exported from thence to any other plantation, or to any other place whatever." By the same law no person was allowed to make hats unless he had served an apprenticeship of seven years, and no negro was permitted to work at the business. In 1753, a prize of 40 shillings was offered in Delaware for the neatest and best hat manufactured in the lower counties. In 1767 there was a very considerable hat manufacture in Carolina, and a profitable export trade was carried on with the Spanish Islands. In Danbury, Conn., Zadoc Benedict began hat making in 1780 with one journeyman and two apprentices. He made three hats a day. In 1786 the hat manufacture had become an extensive industry in Pennsylvania, where it was estimated that upward of 160,000 wool hats and over 54,000 fur hats were made annually. There were 68 hatters in Philadelphia and vicinity who made 31,627 fur hats and 7,000 wool hats yearly. There were in addition 247 hatters in other parts of the state. In 1791, 10,000 fur and wool hats were made yearly by 17 hatters in New London county, Conn. In 1810 the whole number of fur hats reported from 13 states and territories was 457,666; of these 45,369 were made in Pennsylvania. Massachusetts produced 142,645 fur hats, valued at $415,167. Maryland reported a production in 106 hat establishments, chiefly fur, to the value of $304,472, and New Jersey made, chiefly at Newark and vicinity, 31,524 fur hats, valued at $94,052.

The Secretary of the Treasury reported to Congress in April, 1810, that hats were annually imported to the value of $350,000, and American made hats to the value of $100,000 were exported. In 1831 a convention of

manufacturers estimated the production at $15,000,000 annually, giving employment to 15,000 men and boys and 3,000 women. The census of 1840 shows the value of hats and caps manufactured in the United States to have been $8,704,342. Both of these last statements include hats and caps of all kinds.

At the census of 1850, 1,048 establishments were reported, with a capital of $4,427,798, engaged in the manufacture of hats and caps. In 1860 there were only 622 establishments, with a capital of $4,126,572. They consumed, with other materials, 3,039,700 pounds of wool and 1,658,520 pounds of fur, and manufactured, among other things, 2,449,672 fur hats, 2,462,974 felt or soft hats, and 6,191,482 wool hats. In the three following census reports the number of hats produced in the hat and cap factories was not given.

WOOL SCOURING AND WOOL PULLING.

The tendency of manufacturing industries to locate near the sources of supply, which led to the building up of the little mills of a century ago in the heart of the wool-growing districts, together with the tendency to the specialization and subdivision of industries, is nowhere more noticeable in the wool manufacture than in the establishment of wool-scouring establishments. In 1890 they were so few in number that the textile directories did not report them, nor did the census reports on the wool manufacture of that year take cognizance of them. At the present time 25 wool-scouring establishments, employing a capital of $1,061,123, are in operation. Their location is determined by proximity to either the producer or the consumer. Wool as it comes from the sheep is in an exceedingly dirty condition and full of grease or suint. The processes of cleansing preparatory to working consist of opening, burring, washing, scouring and dusting, and in these operations the wool, according to its condition, loses from 20 to 85 per cent in weight. The average loss in weight in domestic wools resulting from cleansing is about 60 per cent. The cost of freight on this extraneous matter is an important consideration to the manufacturers, as on the above basis of shrinkage it adds one and one-half times to the cost of transportation. The advantage, therefore, of scouring plants at a shipping center in a wool-growing district is apparent. Six such establishments are now located in New Mexico, Colorado, and Missouri.

On the other hand a vast amount of wool must always come to market in its original condition, and as all transactions in wool are based upon the scoured pound, it is of advantage to the manufacturer and dealer to have scouring plants at hand where sample bags may be sent to be tested by an independent authority, who can, when required, handle large quantities expeditiously, and at the same time cleanse the wool more uniformly than might be done by a mill on its own premises. In Massachusetts, Connecticut, and New Jersey 9 scouring plants have been established.

There are 10 other plants, located 6 in California, 2 in Illinois, 1 in Oregon, and 1 in Pennsylvania. The California and Oregon plants might perhaps be classed with the first group, but in both of these states there is a well-established and growing manufacturing industry to which these plants may well be useful. The 2 in Illinois might perhaps be assigned to the second group, as Illinois has an important manufacturing interest. It has also a large wool-growing interest, and has, like California and Oregon, been placed in the third group, where both growth and manufacture of wool are influential.

The report of the scouring mills, Table 21, shows that they operated upon 70,878,519 pounds of wool. The establishments which report their business for both the census year and the one preceding show a satisfactory growth of 9.8 per cent in value of products, which in this case represents the amount received for work done.

TABLE 21.—WOOL SCOURING: SUMMARY FOR 1900.

Number of establishments	25
Capital	$1,061,123
Salaried officials, clerks, etc., number	45
Salaries	$72,011
Wage-earners, average number	720
Total wages	$338,606
Men, 16 years and over	646
Wages	$316,924
Women, 16 years and over	74
Wages	$21,682
Miscellaneous expenses	$102,039
Cost of materials used	$193,826
Amount received for work done	$889,809
Number of pounds of wool scoured	70,878,519

The industry of wool pulling is closely connected with wool production and also with the wool manufacture. An attempt was made at the census of 1900 in connection with the wool manufacturing inquiry to obtain these statistics.

The result, however, has not been satisfactory, but the figures received are given in Table 22, not as a complete statement, but as a foundation for future comparison.

TABLE 22.—WOOL PULLING: SUMMARY FOR 1900.

Number of establishments	34
Capital	$944,715
Salaried officials, clerks, etc., number	35
Salaries	$35,422
Wage-earners, average number	475
Total wages	$247,950
Men, 16 years and over	475
Wages	$247,950
Miscellaneous expenses	$47,395
Cost of materials used	$53,975
Amount received for work done	$531,287
Number of pounds of wool pulled	6,111,298

The total quantity of pulled wool reported was 6,111,298 pounds produced in 34 establishments, to which should be added 13,182,146 pounds, reported in connection with several slaughterhouses. This makes a product of 19,293,444, but it is evidently much less than the actual product. The value reported is the amount received for, or the cost of pulling, rather than the value of the wool pulled. The accepted commercial estimate of the pulled-wool production of the year 1900 was 28,663,806 pounds[1] as pulled, equal to 17,198,283 pounds of clean wool. The chief statistician for agriculture estimates the production of pulled wool in the census year at 33,000,000 pounds on the skin.

[1] Bulletin of the National Association of Wool Manufacturers, Vol. XXX, page 350.

SHODDY MANUFACTURE.

Shoddy is the fiber recovered from woolen, worsted, or mixed rags known under the generic name of "shoddy," and is subdivided into shoddy, mungo, flocks, and wool extract. The first two of these are recovered by powerful machines known as "pickers" and "garnets." The picker tears or picks the rags to pieces and gradually reduces the material to its original fiber, while the garnet opens and prepares it for carding. Flocks are produced generally from bits or pieces of all-wool rags which are cut very short into a sort of powder by passing between the blades of a machine called a flock cutter. They are also resultants of the gigging and shearing processes of the cloth manufacture. Flocks are used mostly to add weight and substance to woolen cloths, on the surface of which they are spread during the process of fulling, which incorporates them into the fiber by felting. They are also used to produce a woolly face on waterproof garments and for saddlery, etc.

Wool extract is produced from rags of mixed fiber by a process of carbonization which destroys all vegetable material and leaves only the wool, which is then reduced to fiber by mechanical operations. Besides the shoddy made by the shoddy mills, a large amount is made in woolen mills from rags and clippings for use in the same establishments.

Shoddy is used principally in the wool manufacture in the production of low-grade satinets and other heavy cotton-warp goods; the poorer qualities are used in backings for overcoatings and cloakings and to give weight and substance to various kinds of woolen goods. It is also used to some extent in the production of merino yarns for the hosiery manufacture. The duty on foreign rags and other shoddy materials has generally been placed so high as to practically prevent their importation, and the American manufacturer of shoddy is confined to the home supply.

The following table contains a comparative statement of the principal statistics of the shoddy manufacture, by decades, since 1860:

TABLE 23.—SHODDY: COMPARATIVE SUMMARY, 1860 TO 1900, WITH PER CENT OF INCREASE FOR EACH DECADE.

	DATE OF CENSUS.					PER CENT OF INCREASE.			
	1900	1890	1880	1870	1860	1890 to 1900	1880 to 1890	1870 to 1880	1860 to 1870
Number of establishments	105	94	73	56	30	11.7	28.8	30.4	86.7
Capital	$5,272,929	$3,754,063	$1,165,100	$815,950	$123,500	40.5	222.2	42.8	560.7
Salaried officials, clerks, etc., number	139	[1]144	[3]	[3]	[3]	[2]3.5	.....	.....	.....
Salaries	$166,704	[1]$149,483	[3]	[3]	[3]	11.5	.....	.....	.....
Wage-earners, average number	1,926	2,155	1,282	632	290	[2]10.6	68.1	102.8	117.9
Total wages	$748,948	$707,099	$400,326	$198,372	$54,124	5.9	76.6	101.8	266.5
Men, 16 years and over	1,425	1,252	695	419	141	13.8	80.1	65.9	197.2
Wages	$620,444	$534,250	[3]	[3]	[3]	16.1	.....	.....	.....
Women, 16 years and over	480	865	496	171	149	[2]44.5	74.4	190.1	14.8
Wages	$124,004	$168,549	[3]	[3]	[3]	[2]26.4	.....	.....	.....
Children, under 16 years	21	38	91	42	[3]	[2]44.7	[2]58.2	116.7	.....
Wages	$4,500	$4,300	[3]	[3]	[3]	4.7	.....	.....	.....
Miscellaneous expenses	$293,149	$238,094	[4]	[4]	[4]	23.1	.....	.....	.....
Cost of materials used	$4,875,192	$6,003,035	$3,366,650	$1,098,603	$227,925	[2]18.8	78.3	206.4	382.0
Value of products	$6,730,974	$7,887,000	$4,989,615	$1,768,592	$402,590	[2]14.7	58.1	182.1	339.3

[1] Includes proprietors and firm members, with their salaries; number only reported in 1900, but not included in this table. (See Table 39.)
[2] Decrease.
[3] Not reported separately.
[4] Not reported.

It appears that the number of mills has increased 11.7 per cent during the decade, the capital 40.5 per cent, and miscellaneous expenses 23.1 per cent. The value of products has decreased 14.7 per cent, and the cost of materials used, 18.8 per cent. The number of wage-earners decreased 10.6 per cent, but the amount paid in wages increased 5.9 per cent. There was an increase in the number of men employed, and a larger relative increase in their earnings. The numbers of women and children employed have been reduced in about equal ratio, 44.5 and 44.7 per cent. The industry was carried on in 105 establishments, employing $5,272,929 capital and producing goods to the value of $6,730,974.

While the industry was carried on in 19 states, it was located principally as shown in the following state-

ment, the states being arranged in order of value of products:

	Number.	Capital.	Value of products.
United States	77	$3,862,174	$4,969,163
Ohio	6	1,397,746	1,478,712
Pennsylvania	26	972,070	1,448,886
Massachusetts	29	769,294	988,189
Connecticut	7	494,074	537,733
Rhode Island	9	228,930	515,643

These 5 states embraced 73.3 per cent of the number of establishments, employed 73.2 per cent of the capital, and produced 73.8 per cent of the total value of products. Of these states, Ohio reports the greatest value of products and of capital, and the smallest number of establishments. This is accounted for by the fact that the largest shoddy manufactory in the United States was located there. The products of Pennsylvania were nearly equal to those of Ohio, but the capital was only two-thirds as great and the number of establishments more than four times the number reported in Ohio. Massachusetts had 3 more establishments than Pennsylvania, with products of less than two-thirds the value. Connecticut and Rhode Island together were not quite equal in capital employed to Massachusetts, which they slightly exceeded in value of products.

Table 24 is a comparative summary for the shoddy manufacture, by states, 1880, 1890 and 1900.

TABLE 24.—SHODDY: COMPARATIVE SUMMARY BY STATES, 1880 TO 1900.

STATES	Year.	Number of establishments.	Capital.	SALARIED OFFICIALS, CLERKS, ETC.		AVERAGE NUMBER OF WAGE-EARNERS AND TOTAL WAGES.								Miscellaneous expenses.	Cost of materials used.	Value of products.
						Total.		Men, 16 years and over.		Women, 16 years and over.		Children, under 16 years.				
				Number.	Salaries.	Average number.	Wages.	Average number.	Wages.	Average number.	Wages.	Average number.	Wages.			
United States	1900	105	$5,272,929	139	$166,704	1,926	$748,948	1,425	$620,444	480	$124,004	21	$4,500	$293,149	$4,875,192	$6,730,974
	1890	94	3,754,063	[1]144	[1]149,483	2,155	707,099	1,252	534,250	865	168,549	38	4,300	238,094	6,003,035	7,887,000
	1880	73	1,165,100	[2]	[2]	1,282	400,326	695	[2]	496	[2]	91	[2]	[3]	3,366,650	4,989,615
California	[4]1900	3	10,225	.....	.....	8	3,940	8	3,940	.....	.....	.....	.....	586	9,156	17,678
	[4]1890	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	[5]1880	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Connecticut	1900	7	494,074	8	8,191	118	44,163	101	40,461	7	1,402	10	2,300	33,601	362,438	537,733
	1890	7	395,336	14	13,271	166	72,545	142	66,185	16	4,600	8	1,760	26,099	442,852	648,060
	1880	8	86,000	.....	.....	139	35,345	93	.....	38	.....	8	.....	.....	261,200	347,500
Illinois	[4]1900	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	1890	3	110,037	4	6,500	110	29,754	37	19,228	73	10,526	.....	.....	11,610	103,722	182,110
	1880	2	22,000	.....	.....	31	12,300	16	.....	12	.....	3	.....	.....	74,500	100,000
Massachusetts	1900	29	769,294	30	34,336	307	127,715	260	114,492	44	12,794	3	429	50,627	685,123	988,189
	1890	29	902,850	29	28,135	406	152,613	300	121,984	106	30,629	.....	.....	62,687	1,170,868	1,614,459
	1880	30	460,500	.....	.....	471	173,439	334	.....	105	.....	32	.....	.....	1,308,715	2,305,985
New Hampshire	[4]1900	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	1890	3	23,000	1	1,033	24	10,650	24	10,650	.....	.....	.....	.....	1,795	86,816	111,848
	1880	3	17,300	.....	.....	23	5,700	13	.....	8	.....	2	.....	.....	38,900	49,600
New Jersey	1900	4	538,936	15	30,100	156	56,027	128	49,445	28	6,582	.....	.....	25,798	526,492	685,048
	1890	4	193,225	10	8,150	117	35,605	64	26,480	49	8,225	4	900	20,150	301,113	389,640
	1880	1	35,000	.....	.....	30	25,000	10	.....	5	.....	15	.....	.....	80,734	137,500
Ohio	1900	6	1,397,746	35	55,225	474	164,579	229	102,736	245	61,843	.....	.....	69,259	1,077,529	1,478,712
	1890	3	744,530	12	20,100	684	162,600	179	80,260	485	81,340	20	1,000	28,266	1,100,480	1,377,500
	1880	1	250,000	.....	.....	246	40,000	30	.....	216	.....	.....	.....	.....	575,000	700,000
Pennsylvania	1900	26	972,070	34	24,746	368	148,240	285	126,604	80	21,064	3	572	57,728	1,069,944	1,448,886
	1890	18	640,382	37	34,716	302	116,459	211	92,183	91	24,276	.....	.....	50,305	1,205,258	1,633,770
	1880	11	186,000	.....	.....	143	47,441	90	.....	40	.....	13	.....	.....	510,977	655,895
Rhode Island	1900	9	228,930	3	3,400	131	56,397	127	55,096	4	1,301	.....	.....	23,828	399,126	515,643
	1890	10	194,250	14	16,498	132	51,516	129	50,580	3	936	.....	.....	22,278	1,165,235	1,350,792
	1880	6	49,600	.....	.....	83	18,590	51	.....	26	.....	6	.....	.....	137,054	195,045
Vermont	1900	3	245,982	1	1,000	93	45,345	67	38,142	26	7,203	.....	.....	7,609	268,712	382,852
	[4]1890	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	1880	2	15,000	.....	.....	15	3,896	6	.....	9	.....	.....	.....	.....	37,000	56,000
New York	1900	9	329,861	7	6,130	167	65,739	137	58,695	28	6,781	2	263	18,122	316,783	443,529
	1890	12	482,520	19	17,300	173	60,061	140	54,654	27	4,767	6	640	11,640	343,012	471,478
	1880	7	32,700	.....	.....	78	33,610	43	.....	32	.....	3	.....	.....	321,220	407,590
All other states[6]	1900	9	285,811	6	3,576	104	36,803	83	30,833	18	5,034	3	936	6,591	165,889	232,704
	1890	5	67,933	4	3,780	41	15,296	26	12,046	15	3,250	.....	.....	3,264	83,679	107,343
	1880	2	11,000	.....	.....	23	5,005	9	.....	5	.....	9	.....	.....	21,350	34,500

[1] Includes proprietors and firm members, with their salaries; number only reported in 1900, but not included in this table. (See Table 39.)
[2] Not reported separately.
[3] Not reported.
[4] Included in "all other states."
[5] No establishments reported.
[6] Includes establishments distributed as follows: 1900—Georgia, 1; Illinois, 2; Indiana, 1; Maine, 2; New Hampshire, 2; Wisconsin, 1. 1890—California, 1; Maine, 2; Vermont, 1; Wisconsin, 1. 1880—Maine, 1; Maryland, 1.

The production of the shoddy mills in 1900 includes the wool extract, noils, and various wastes with the quantity of shoddy, and together amount to 48,018,427 pounds, valued at $6,329,626. In 1890 the similar products of the shoddy mills aggregated 45,055,452 pounds, with a value of $7,333,465. The quantity in 1900 had increased 6.6 per cent, but the value showed a decrease of 13.7 per cent. The decrease in the industry, therefore, is apparent rather than real, being not in the quantity produced, but in its value, owing to reduced prices.

HOSIERY AND KNIT GOODS.

In preceding census reports the statistics of the manufacture of hosiery and knit goods were included with those of the wool manufacture. At the census of 1890 these statistics were also made the subject of a separate tabulation, because it was found that while in its early history wool was almost the only material used, in later years other fibers were becoming continually more prominent in the manufacture, and that the time was at hand when the predominance of these would cause it to be more closely allied to some other branch of the textile industry. The statistics for 1900 are presented separately in the general tables.

The progress of the industry is shown in the following comparative summary of its principal statistics for each census, beginning with that of 1850:

TABLE 25.—HOSIERY AND KNIT GOODS: COMPARATIVE SUMMARY, 1850 TO 1900, WITH PER CENT OF INCREASE FOR EACH DECADE.

	DATE OF CENSUS.						PER CENT OF INCREASE.				
	1900	1890	1880	1870	1860	1850	1890 to 1900	1880 to 1890	1870 to 1880	1860 to 1870	1850 to 1860
Number of establishments	921	796	359	248	197	85	15.7	121.7	44.8	25.9	131.8
Capital	$81,860,604	$50,607,738	$15,579,591	$10,931,260	$4,035,510	$544,735	61.8	224.8	42.5	170.9	640.8
Salaried officials, clerks, etc., number	2,809	[1] 1,621	(2)	(2)	(2)	(2)	73.3	.....	.....	.....	.....
Salaries	$3,124,798	[1] $1,685,153	(2)	(2)	(2)	(2)	85.4	.....	.....	.....	.....
Wage-earners, average number	83,387	59,588	28,885	14,788	9,103	2,325	39.9	106.3	95.3	62.5	291.5
Total wages	$24,358,627	$16,578,119	$6,701,475	$4,429,085	$1,661,972	$360,336	46.9	147.4	51.3	166.5	361.2
Men, 16 years and over	21,154	14,846	7,517	4,252	2,780	835	42.5	97.5	76.8	52.9	232.9
Wages	$8,890,728	$6,041,200	(2)	(2)	(2)	(2)	47.2	.....	.....	.....	.....
Women, 16 years and over	53,565	40,826	17,707	7,991	6,323	1,490	31.2	130.6	121.6	26.4	324.4
Wages	$14,243,808	$10,006,070	(2)	(2)	(2)	(2)	42.4	.....	.....	.....	.....
Children, under 16 years	8,668	3,916	3,661	2,545	(2)	(2)	121.3	7.0	43.9	.....	.....
Wages	$1,224,091	$530,849	(2)	(2)	(2)	(2)	130.6	.....	.....	.....	.....
Miscellaneous expenses	$6,599,865	$3,627,245	(3)	(3)	(3)	(3)	82.0	.....	.....	.....	.....
Cost of materials used	$51,071,859	$35,861,585	$15,210,951	$9,835,823	$3,202,317	$415,113	42.4	135.8	54.6	207.1	671.4
Value of products	$95,482,566	$67,241,013	$29,167,227	$18,411,564	$7,280,606	$1,028,102	42.0	130.5	58.4	152.9	608.2

[1] Includes proprietors and firm members, with their salaries; number only reported in 1900, but not included in this table. [See Table 41.]
[2] Not reported separately.
[3] Not reported.

In 1850 there were only 85 establishments reported. They had a capital of $554,735, and produced goods to the value of $1,028,102. They employed 2,325 wage-earners, of whom 835 were men and 1,490 women; the children were not separately reported. The wage-earners received $360,336 in wages, and the cost of materials used was $415,113. These are all the statistics that were given in the census report for that year. The growth of the industry from these small beginnings to its condition in 1900 is almost marvelous. In fifty years the 85 establishments have increased to 921. The $1,028,102 shown as the value of products in 1850, increased to $95,482,566 in 1900; the capital had increased 150 times, amounting to $81,860,604. The wage-earners numbered 83,387, 21,154 of whom were men, 53,565 women, and 8,668 children. Their wages amounted to $24 358,627, 24 times the total value of the product in 1850. The cost of materials used has not increased in the same proportion as has the capital, but in 1900 it was $51,071,859, which is over 120 times the value of the materials used in 1850. The growth in value of product during the fifty years has been in the following proportions:

From 1850 to 1860, 7 times.
From 1860 to 1870, 2½ times.
From 1870 to 1880, 1½ times.
From 1880 to 1890, 2⅔ times.
From 1890 to 1900, 1⅓ times the product of the earlier year.

ESTABLISHMENTS.

Of the 921 establishments reported, 588 were in the Middle states and 133 in the New England states. In point of numbers Pennsylvania was first, with 319;

New York second, with 242; Massachusetts had only 54; Connecticut, 25; New Hampshire, 22; New Jersey, 16; Rhode Island, 15; Vermont, 14; Delaware, 7; Maryland, 4; and Maine, 3.

CAPITAL.

The capital employed in 1850 amounted to only $544,735. It 1860 it had increased to $4,035,510. In 1900 it was more than 20 times the amount employed in 1860, being $81,860,604, and 150 times the amount employed in 1850. The Middle states naturally showed the largest amount of capital, the total being $48,531,122, of which New York had $30,203,640 and Pennsylvania $15,743,981. In New England the total capital employed was $19,014,126, or only about $3,300,000 more than in the state of Pennsylvania.

The capital employed in Massachusetts was $6,288,672. Connecticut had $6,149,338; New Hampshire, $2,525,286; Rhode Island, $2,452,044. Neither of the other states in these groups employed a capital amounting to $2,000,000.

The following statement shows the statistics of capital for 1890 and 1900:

	CAPITAL		Per cent of increase.
	1900	1890	
Aggregate	$81,860,604	$50,607,738	61.8
Total fixed capital	36,960,919	23,574,761	56.8
Land	3,367,762	2,271,466	48.3
Buildings	9,556,726	6,194,088	54.3
Machinery, tools, and implements	24,036,431	15,109,207	59.1
Cash on hand, unsettled ledger accounts, stock on hand, etc	44,899,685	27,032,977	66.1

MACHINERY.

The first report of machinery of this industry was made at the census of 1870, at which time there were 519 sets of cards, 5,625 knitting machines, 1,668 sewing machines, 438 looms, and 148,385 spindles. In 1900 the industry employed 1,161 sets of woolen cards, distributed according to the following statement, which shows not only the number of sets of cards in each state but also the width of the cards reported. The horsepower increased in the decade 20,149, or 58.6 per cent. The actual increase was next in rank to that of the worsted manufacture.

TABLE 26.—NUMBER AND WIDTH OF CARDS, BY STATES: 1900.

STATES.	Actual number of sets in each state.	Number reporting width.	NUMBER OF CARDS OF EACH WIDTH REPORTED.							
			30 inches.	32 inches.	40 inches.	42 inches.	44 inches.	48 inches.	60 inches.	64 inches.
United States	1,161	1,161	3	4	432	15	7	569	110	21
Connecticut	134	134	.....	4	47	.....	.....	81	2	.....
Illinois	7	7	.....	.....	.....	.....	.....	1	6	.....
Indiana	27	27	.....	.....	5	.....	.....	21	1	.....
Idaho	1	1	.....	.....	1	.....	.....	.....	.....	.....
Massachusetts	39	39	.....	.....	6	.....	.....	30	3	.....
Minnesota	3	3	.....	.....	.....	.....	.....	3	.....	.....
Michigan	28	28	.....	.....	5	.....	.....	18	5	.....
New Hampshire	74	74	.....	.....	46	.....	.....	28	.....	.....
New Jersey	26	26	.....	.....	.....	.....	.....	26	.....	.....
New York	674	674	3	.....	308	14	7	264	57	21
North Carolina	5	5	.....	.....	.....	.....	.....	5	.....	.....
Ohio	10	10	.....	.....	1	.....	.....	9	.....	.....
Pennsylvania	31	31	.....	.....	.....	.....	.....	12	19	.....
Rhode Island	10	10	.....	.....	.....	.....	.....	10	.....	.....
Vermont	40	40	.....	.....	11	.....	.....	26	3	.....
Virginia	34	34	.....	.....	.....	.....	.....	30	4	.....
West Virginia	2	2	.....	.....	.....	.....	.....	.....	2	.....
Wisconsin	16	16	.....	.....	2	1	.....	5	8	.....

The industry employed also 15[1] combing machines and 521,871 spindles—of which 290,366 were woolen, 14,064 worsted, and 205,742 cotton spinning spindles and 3,613 woolen, 7,130 worsted, and 956 cotton doubling spindles—133 looms, 89,047 knitting machines of all kinds, and 24,535 sewing machines. The 15 combing machines were in New England, 9 being in Connecticut, 3 in Rhode Island, and 3 in Massachusetts. Of the cards, 297 were in New England, 678 in the Middle states, 44 in the Southern, and 91 in the Western states. New York reported the largest number of cards, 674; Connecticut was next with 134; New Hampshire had 74; Vermont, 40; Massachusetts, 39; Virginia, 34; Pennsylvania, 31; Michigan, 28; Indiana, 27; New Jersey, 26; and Wisconsin 16. None of the other states reported more than 12 sets, and some did not report any.

The following table shows the number of mills employing sets of woolen cards according to number of sets in 1890 and 1900:

[1] See Table 42.

TABLE 27.—HOSIERY AND KNIT GOODS: NUMBER OF MILLS ACCORDING TO SETS OF CARDS: 1890 AND 1900.

GEOGRAPHICAL DIVISIONS.	Year.	Number reporting sets of cards.	1 set.	2 sets.	3 sets.	4 sets.	5 sets.	6 sets.	7 sets.	8 sets.	9 sets.	10 to 15 sets.	15 to 20 sets.	20 sets and over.
United States	1900	182	9	22	14	23	17	24	11	17	11	28	4	2
	1890	188	17	25	26	26	13	20	19	8	7	21	3	3
New England states	1900	42	2	4	2	4	3	5	4	7	3	7	.....	1
	1890	59	8	9	7	6	5	6	5	5	1	6	.....	1
Middle states	1900	105	1	11	8	14	12	12	7	8	8	19	4	1
	1890	108	3	11	15	16	7	13	14	3	6	15	3	2
Southern states	1900	10	1	2	.....	1	1	5	.....	.....	.....	.....	.....	.....
	1890	2	.....	1	.....	.....	.....	1	.....	.....	.....	.....	.....	.....
Western states	1900	25	5	5	4	4	1	2	.....	2	.....	2	.....	.....
	1890	19	6	4	4	4	1	.....	.....	.....	.....	.....	.....	.....

SPINDLES.

Of the total number of spindles in the United States in 1900, 233,253 were in New England, 108,938 in Massachusetts, 79,536 in Connecticut, 26,867 in New Hampshire, 11,076 in Vermont, and 6,836 in Rhode Island. In the Middle states there were 231,594 spindles. New York had 191,582; Pennsylvania, 31,604; New Jersey, 8,408; none were reported in Delaware and Maryland. In the Southern group 24,126 spindles were reported, half of which, 12,036, were in Virginia; South Carolina had 5,620, North Carolina 2,860, and the remaining 3,610 were distributed in various states. The Western group reported 32,898 spindles, of which 8,694 were in Wisconsin, 8,500 in Indiana, 6,686 in Michigan, 3,920 in Ohio, 3,480 in Illinois, and 1,418 in Minnesota. The other Western states reported only 200 spindles in all.

The total number of spindles in the United States engaged in this industry is as follows:

COMPARATIVE STATEMENT OF SPINDLES, 1890 AND 1900.

	WOOLEN.		WORSTED.		COTTON.	
	1900	1890	1900	1890	1900	1890
Hosiery and knit goods mills	293,979	312,756	21,194	6,767	206,698	69,830

The knitting machines were distributed as follows: 32,860 in New England, 40,407 in the Middle states, 5,519 in the Southern states, and 10,261 in the Western states. Of those in New England, New Hampshire had 23,174; Massachusetts, 5,003; Connecticut, 2,662; Rhode Island, 1,262; Vermont, 633; Maine, 126. In the Middle states they were distributed thus: Pennsylvania, 26,120; New York, 11,666; New Jersey, 1,335; Delaware, 674; and Maryland, 612. The Southern states had a total of 5,519 machines, of which 1,354 were in North Carolina, 1,078 in Georgia, 993 in Virginia, 785 in South Carolina, 581 in Tennessee, 81 in Louisiana, and the rest were distributed in various states. In the Western group of states there were 10,261, of which Wisconsin had 2,832; Michigan, 2,828; Illinois, 1,975; Ohio, 1,147; Indiana, 633, and Minnesota, 476. The remaining number were distributed in various states.

A comparison of the number of knitting machines with the product produces some surprising results. Some of the states, for instance, possessing the larger number of machines, produced a comparatively small amount of goods, and other states, with a smaller number of machines, were the great producers of hosiery and knit goods. This condition of affairs is accounted for by the fact that in the states possessing the greater number of machines there were a large number of small hand machines, capable of only a limited production, but in other states the machines were the large circular machines or cylinders, operated by power, and capable of an immense production.

The following statement shows the idle capital and machinery of the industry:

STATEMENT.—IDLE CAPITAL AND MACHINERY, BY STATES: 1900.

STATES.	Number of establishments.	CAPITAL.					MACHINERY.		
		Total.	Land.	Buildings.	Machinery, tools, and implements.	Cash and sundries.	Sets of cards.	Spindles.	Knitting machines.
United States	36	$1,173,803	$102,450	$236,900	$544,426	$290,027	55	11,464	1,173
New York	10	784,050	81,500	160,000	363,300	179,250	48	7,880	412
North Carolina	3	84,900	1,600	13,700	45,000	24,600	.....	.....	149
Ohio	3	68,091	1,300	16,500	30,000	20,291	1	304	104
Pennsylvania	9	61,843	3,050	13,700	33,500	11,593	.....	.....	147
All other states[1]	11	174,919	15,000	33,000	72,626	54,293	6	3,280	361

[1] Includes establishments distributed as follows: Connecticut, 1; Georgia, 1; Illinois, 1; Massachusetts, 2; Mississippi, 1; New Jersey, 2; South Carolina, 1; Wisconsin, 2.

THE INDUSTRY BY GEOGRAPHICAL DIVISIONS.

Tables No. 41 and 42 show the condition and growth of the industry from the beginning of its statistical record in 1850 to the present time, not only in the whole country, but in each state and territory, and also in the several states grouped according to their geographical location.

At the census of 1850 the products were reported without any indication of the localities in which the mills were situated. It was not until 1860 that the reports were so segregated as to show the location of the industry. At that time the total value of products was $7,280,606, of which $4,847,984 was produced in the Middle states and $2,374,242 in New England, leaving only $58,380 for the rest of the country. The value of products in these two groups of states was $7,222,226. The product of the various states in these geographical divisions was as follows, in order of value of production:

Pennsylvania	$2,114,315
New York	1,944,090
Connecticut	1,383,528
New Jersey	783,456
New Hampshire	573,794
Massachusetts	314,120
Vermont	102,800
Maryland[1]	6,123

In 1900 the value of the products in the Middle states was $60,473,407, and in New England $17,834,673, a a total of $78,308,080, or more than ten times the production of 1860, and equal to more than 82 per cent of the total value of these goods produced in the United States. The standing of these states by value of products was as follows:

New York	$35,886,048
Pennsylvania	21,896,063
Massachusetts	6,620,257
Connecticut	4,043,977
Rhode Island	2,713,850
New Hampshire	2,592,829
Vermont	1,834,685
New Jersey	1,784,148
Maryland	514,093
Delaware	429,055
Maine	29,075

WESTERN STATES.

The states grouped together as Western states, which include Ohio, Michigan, Indiana, Wisconsin, Illinois, and all the remaining states west of the Mississippi River, excepting Arkansas, Louisiana, and Texas, possessed 129 establishments, with a capital of $10,792,485. They employed 11,061 wage-earners, who received $2,885,045 in wages. Of these wage-earners, 2,535 are men, 7,400 women, and 1,126 children. The materials used cost $6,248,504, and the goods produced were valued at $12,143,150. It is only in Ohio and Missouri that any of these establishments existed prior to 1860. At the census of 1860 Ohio reported 11 establishments, with a capital of $10,900, and Missouri 2 establishments, with a capital of $11,000. The number in Ohio has since grown to 24, with a capital of $1,067,937. In 1890 Missouri had 7 factories, with a capital of $33,247. These have since been reduced to 2 in number, and their statistics are not separately reported. Michigan, the knit-goods industry of which first appears in the census of 1880 with 11 establishments, was in 1900 the most important of the Western group, having 32 factories, with a capital of $2,135,916, employing 2,509 wage-earners, consuming material to the value of $1,459,378, and producing goods valued at $2,791,257. Wisconsin was second, with 27 establishments, a capital of $2,558,299, and 2,722 wage-earners, earning $600,495. The cost of materials used was $1,176,146 and the value of products $2,486,813. Indiana, which stood sixth in number of establishments and first in capital, was third in value of products. This state had 7 factories, with a capital of $2,728,306, and employed 2,016 wage-earners, with wages amounting to $703,129. The materials used cost $1,200,483, from which goods to the value of $2,424,304 were produced. Illinois was next in rank, with 14 establishments, $1,530,990 capital, 1,805 wage-earners, $494,285 in wages paid, $1,261,242 expended for materials, and products valued at $2,145,429. Ohio had 24 establishments, with a capital of $1,067,937, wage-earners numbering 1,413, and wages paid amounting to $354,369. The cost of materials was $807,673, and the products were valued at $1,576,285. None of the other states in this group reported products valued at over $500,000.

SOUTHERN STATES.

In this group of states the industry is of very recent origin. The census of 1860 showed 3 establishments in Kentucky, but none was reported after that until 1880, when 1 establishment was returned, with no statement as to its location. At the census of 1900 71 establishments were reported, located as follows: Twenty-four in North Carolina, 16 in Georgia, 15 in Virginia, 6 in South Carolina, 4 in Tennessee, 2 in West Virginia, and 1 each in Alabama, Louisiana, Mississippi, and Texas. The capital employed in these states was $3,522,871, the number of wage-earners 6,137, the wages paid $1,115,356, the cost of materials $2,798,219, and the value of products $5,031,336.

MATERIALS USED.

The following comparative statement shows the quantity of materials used, both in 1890 and 1900, and indicates the growth in favor of knitted cotton garments:

[1] Maryland is in the tabulation grouped with the Middle states.

COMPARATIVE STATEMENT OF QUANTITY AND COST OF MATERIALS USED, 1900–1890.

CLASSES.	1900	1890
Total cost	$51,071,859	$35,861,585
Wool, foreign and domestic, in condition purchased:		
Pounds	17,953,907	21,639,393
Cost	$5,262,135	$8,254,418
Raw cotton:		
Pounds	49,451,301	32,432,617
Cost	$3,561,592	$3,712,215
Mohair:		
Pounds	631,199	159
Cost	$44,953	$87
Woolen yarn not made in mill:		
Pounds	2,621,893	6,386,370
Cost	$1,257,587	$3,791,497
Worsted yarn not made in mill:		
Pounds	5,823,215	4,146,035
Cost	$4,865,304	$4,279,105
Merino yarn not made in mill:		
Pounds	1,981,484	[1]
Cost	$642,535	[1]
Cotton yarn not made in mill:		
Pounds	131,820,068	32,248,849
Cost	$22,204,918	$7,588,973
Linen yarn not made in mill:		
Pounds	71,478	301,695
Cost	$53,588	$65,335
Silk and spun-silk yarn not made in mill:		
Pounds	268,247	120,341
Cost	$946,801	$600,315
Yarn of jute, ramie, or other vegetable fiber not made in mill:		
Pounds	44,682	.....
Cost	$57,677	.....
Shoddy, purchased and made:		
Pounds	3,770,626	4,735,144
Cost	$488,792	$878,948
Waste and wool noils:		
Pounds	5,276,454	5,503,286
Cost	$1,487,907	$2,021,492
All other materials, cost	$10,198,070	$4,669,200

[1] None reported.

The quantity of wool used has decreased 3,685,486 pounds. The quantity of woolen yarn also has been reduced, but the quantity of worsted yarn has increased. In 1890 no separate report of merino yarns used was made. In 1900 the use of 1,981,484 pounds was reported. The consumption of woolen, worsted, and merino yarns was nearly the same in quantity as the consumption of woolen and worsted yarns in 1890. The quantity of linen yarn has been reduced from 301,695 pounds to 71,478 pounds, and the quantity of raw-silk and spun-silk yarns has increased from 120,341 pounds in 1890 to 268,247 pounds. The use of shoddy has fallen off about 1,000,000 pounds, while the quantity of wool waste and noils used has remained about the same. The use of cotton and cotton yarns has increased greatly, and in consequence the whole character of the industry has altered. In 1890, 32,432,617 pounds of cotton and 32,248,849 pounds of cotton yarn were used in this industry. In 1900 the demand for cotton goods had so increased that 44,451,301 pounds of raw cotton and 131,820,068 pounds of cotton yarn were necessary, which would require approximately 160,000,000 pounds of cotton for its production, making the total quantity of cotton used in this manufacture 209,000,000 pounds, costing $25,766,510, compared with 17,953,907 pounds of wool used, which cost $5,262,135.

DYE STUFFS, CHEMICALS, ETC.

The cost of dyestuffs, chemicals, etc., used in 1900 and 1890 was as follows:

YEARS.	Dyestuffs and chemicals, value.	OIL.		SOAP.	
		Gallons.	Value.	Pounds.	Value.
1900	$1,023,161	396,278	$91,315	5,903,557	$204,485
1890	564,053	528,504	135,037	6,647,236	212,844

PRODUCTS.

The gross value of products was $95,482,566, an increase of 42 per cent over 1890, when the value amounted to $67,241,013. The most important in value of these manufactures were the underwear, shirts and drawers of all kinds, valued at $45,157,549, or 37 per cent more than the value of similar goods made in 1890. In addition to these was the value of union or combination suits used for the same purposes, amounting to $3,691,847, which might properly be included with the total of shirts and drawers. The next in importance were the hose and half hose, the value of which was $27,672,013. The above items cover all but $19,000,000 of the total value of products. The balance was divided among the less important items of manufacture, the largest in value being gloves and mittens, with a value of $4,244,046, closely followed by cardigan jackets, etc., with a value of $3,498,837. The gross value of products of the hosiery and knit goods manufacture was $95,482,566. The value of products twice reported [1] was $9,527,121, which being subtracted leaves $85,955,445, as the net value of the hosiery and knit goods productions. The following table contains a comparative summary of the quantity and value of products at the censuses of 1890 and 1900:

TABLE 28.—HOSIERY AND KNIT GOODS: KIND, QUANTITY AND VALUE OF PRODUCTS, 1890 AND 1900, WITH PER CENT OF INCREASE.

CLASSES.	1900	1890	Per cent of increase.
Total	$95,482,566	$67,241,013	42.0
Woolen, merino and cotton half hose:			
Dozens	13,249,558	7,078,505	87.2
Value	$11,030,244	$7,434,131	48.4
Woolen, merino and cotton hose:			
Dozens	16,641,769	10,062,886	65.4
Value	$16,203,372	$11,728,075	38.2
Merino, all-wool and cotton shirts and drawers:			
Dozens	15,818,893	6,862,157	130.5
Value	$45,157,549	$32,961,997	37.0
Leggings and gaiters:			
Dozens	71,038	25,072	183.3
Value	$248,523	$85,401	191.0
Gloves and mittens:			
Dozens	1,898,587	896,150	111.8
Value	$4,244,046	$1,935,080	119.3

[1] See page 97.

TABLE 28.—HOSIERY AND KNIT GOODS: KIND, QUANTITY AND VALUE OF PRODUCTS, 1890 AND 1900, WITH PER CENT OF INCREASE—Continued.

CLASSES.	1900	1890	Per cent of increase.
Hoods, scarfs, nubias, etc.:			
Dozens	343,429	342,497	0.3
Value	$1,002,392	$1,476,430	[1]32.1
Cardigan jackets, etc.:			
Dozens	594,090	361,478	64.4
Value	$3,498,837	$3,576,248	[1]2.2
Knit shawls:			
Dozens	157,622	22,990	585.6
Value	$328,720	$115,467	184.7
Fancy goods, wristers, etc.:			
Dozens	284,685	270,533	5.2
Value	$951,052	$759,648	25.2
Boot and shoe linings:			
Yards	10,406,440	7,596,711	37.0
Value	$2,205,003	$1,088,558	102.6
Total value	$84,869,738	$61,161,035	38.8
Jersey cloth:			
Yards	4,488,911	3,065,057	46.5
Value	$1,305,376	$2,157,692	[1]39.5
All-wool and union or merino yarns:			
Pounds	83,327	852,180	[1]90.2
Value	$10,387	$472,703	[1]91.5
Worsted yarns:			
Pounds	51,202	17,000	201.2
Value	$36,303	$13,642	166.1
Cotton yarn:			
Pounds	2,419,282	500,000	383.9
Value	$422,100	$150,000	181.4
Wool rolls, noils, waste and all other partly manufactured products:			
Pounds	385,863	[2]	.....
Value	$31,267	$38,866	[1]19.5
Total value of all partly manufactured products	$530,057	$675,211	[1]21.5
All other products,[3] value	$8,503,464	$3,184,950	167.0
Contract work, value	$273,931	$63,125	340.9

[1] Decrease.
[2] Not reported.
[3] "All other products" for 1900 includes combination suits valued at $3,691,847. No combination suits were exported in 1890.

In addition to the above, knit goods, valued at $31,919 in 1900 and $84,134 in 1890, were made in woolen mills and reported with the products of the wool manufacture. This table, although it presents a comparison of the products of the two census years, does not show the trend toward increased production of cotton fabrics. Examination of the general tables for the hosiery and knit-goods industry in these two reports develops that the manufacture of woolen hosiery has fallen off in quantity over 41.3 per cent, and that woolen underwear, including combination suits, has not varied materially. The manufacture of merino hosiery has increased 72.3 per cent and merino underwear about 5.9 per cent. The manufacture of cotton hosiery and underwear has greatly increased. In 1890, 5,341,628 dozens half hose were made, 7,387,259 dozens of cotton hose, and 3,246,590 dozens shirts and drawers. At the census of 1900, reports were received of the production of 11,352,081 dozens cotton half hose, 15,028,173 dozens cotton hose, 12,058,431 dozens cotton shirts and drawers, and 824,632 dozens cotton combination suits.

The relative value of the production of the wool, merino, and cotton goods of these kinds at the two censuses is as follows:

	1900	1890
Woolen	$9,188,701	$16,497,395
Merino	16,471,880	16,451,999
Cotton	50,306,145	19,174,809

The table emphasizes the increased use of cotton in these fabrics, especially when the lower price of the fiber is considered in connection with the remarkable increase in the value of the product.

In addition to the goods made of cotton or wool, a very considerable quantity of silk fabrics were made on knitting machines. The statistics for 1900 show the production of 12,572 dozens of silk or silk-mixed hosiery, valued at $186,413; 54,807 dozens shirts and drawers, valued at $518,045, and 12,728 dozens of combination suits, valued at $116,286. There were also manufactured a large quantity of silk gloves and mitts, but the census schedules did not provide for their being reported separately from similar goods made of other fibers. The expert special agent in charge of silk manufactures estimates the value of these goods to have been equal to $1,000,000. The total quantity of silk and spun-silk yarns used was 266,247 pounds, costing $946,801.

CONCLUSION.

The progress of the American wool manufacture and connected industries during the decade is shown by this investigation to have been very satisfactory.

The manufacture shows an increase in value of products of 9.88 per cent in 1900 as compared with 1890. The increase in value of products in the hosiery and knit goods manufacture was 42 per cent.

It is to be regretted that there are no data with which a comparison of the wool manufacture of the United States and foreign countries can be made, either by value of products or materials consumed. The principal information available is that contained in the annual wool reports of Messrs. Helmuth Schwartze & Co., of London, England, which contain very full statistics of the wool production of the United Kingdom, and its imports and exports of wool compiled from the Board of Trade returns. They also contain statements of the movement of wools from the British colonial possessions to the continent of Europe and to the United States; but so far as Europe is concerned, these statements are not sufficient for the desired purpose. It is only possible, therefore, to compare the consumption of wool in the United States with that in the United Kingdom. From the Helmuth Schwartze & Co. reports it appears that the quantity of wool retained for consumption in Great Britain in 1890 was 428,000,000 pounds, and in 1900, 502,000,000 pounds. The quantity left for consumption can not, however, be safely assumed to represent the quantity actually consumed. The statements, as made, simply give the difference

between the sum of the home production plus the imports and the exports. The quantity on hand at the beginning of any period under consideration should be added, and what remains at the close deducted from the quantity "retained for consumption;" this will give what may be called the "takings" of wool for the period.

But, as it is impossible to know what quantities are in the hands of manufacturers or dealers at any time, to ascertain as nearly as possible the actual consumption, an average of the takings for two periods of three years each in the United Kingdom, has been obtained. For the years 1898, 1899, and 1900 the average takings were 506,000,000 pounds; in 1888, 1889, and 1890 they were 426,000,000 pounds; these quantities may be considered as representing the quantity of wool, in condition purchased, consumed in the English wool manufactories in 1900 and in 1890. The increased consumption in 1900 over 1890 was 80,000,000 pounds, or 18.8 per cent. The consumption in the United States in 1890 was 351,158,020 pounds; in 1900, 412,323,410 pounds, an increase of 61,165,410 pounds, or 17.4 per cent. The ratio of increase in quantity of wool consumed was, therefore, very nearly the same in both countries. Together in 1900 they consumed nearly one-third of the world's annual wool product. Of this consumption the United States used 45 per cent and the United Kingdom 55 per cent. There is this important difference, however, between the two: the wool manufactures of the United States are consumed almost entirely within its own borders, but many of those of the United Kingdom are exported. The manufactures of wool exported from the United Kingdom, in excess of the imports in 1900, amounted to £11,119,000, equal to $54,110,614. This sum includes the value of tops, yarns, and all other products of the wool manufacture and of hosiery and small wares.

In addition to the wool consumed in the United Kingdom, a large quantity of shoddy of all kinds is used for which no statistics are available. This is made from rags and pieces of home production supplemented by shoddy produced from imported rags. The imports of woolen rags into the United Kingdom for the three years 1898, 1899, and 1900 averaged 69,617,000 pounds. The annual consumption of shoddy in the United Kingdom is estimated to be not less than 130,000,000 pounds.

The productions of the American looms in general compare favorably with imported fabrics. The importations consist principally of novelties and goods of high grade, requiring more time and labor for their fabrication than the conditions of manufacturing in the United States permit at present.

The machinery of the American wool manufacture is equal to any in the world and in some respects superior. American manufacturers are quick to adopt any mechanical device which will increase production or add to the perfection of their fabrics, and American ingenuity is always at work devising improvements to existing machinery or inventing new and better machines. Some of the most important inventions in wool manufacturing machinery were made by Americans, of which a full statement is to be found in the report of wool manufactures for 1890.[1] Since that date numerous improvements have been made, but nothing of so marked a character as to require special notice.

The facilities for textile education in the United States are much greater now than in 1890. Then only one school existed, devoted exclusively to that purpose, the Philadelphia Textile School connected with the Pennsylvania Museum of Fine Arts. The School of Design connected with the Massachusetts Institute of Technology supplied in some degree a training similar to that obtained in foreign schools. Much attention has been directed during the decade to the subject of textile education, especially in Massachusetts, and in addition to the school named, that state now has large and well established textile schools at Lowell and New Bedford, supported partly by the state and municipalities and partly from private sources. In South Carolina there is a textile department in the South Carolina Agricultural College at Clemson, and in North Carolina one in the Agricultural and Mechanical Institute at Raleigh. A school known as the French Textile School is connected with the Georgia Institute of Technology at Atlanta, and there is a textile department in the Mississippi Mechanical College at Starkville. Besides these there are evening schools for loom fixers and weavers at Lawrence and Fall River, Mass., and correspondence schools at various places in the United States. All are doing good work in training the textile workers for the higher branches of their profession. The results of this technical training are already manifest in the more artistic styles produced and in the economies of manufacture introduced by the graduates of these schools.

In the text and annexed to it are numerous tabular statements together with tables numbered 1 to 28, inclusive, illustrative of the text. In addition to those in the text, the following tables are presented containing the statistics for all branches and subdivisions of the wool industry, and also for the shoddy, fur hat, and hosiery and knit goods manufactures. In the consideration of these tables reference should be made to the text of this report and to the other tables and statements included in it.

Particular attention is invited to the fact that these comparative tables include the results of widely varying methods of inquiry, so that a careful consideration of the explanatory footnotes is essential in order to avoid erroneous deductions.

Table 29 comprises all the items of the inquiry common to a number of periods, and the statistics are given

[1] Eleventh Census of the United States, 1890, Manufacturing Industries, Part III, page 68.

for each decennial year from 1840 to 1900, both inclusive.

Table 30 exhibits a total for the United States, under each item of the schedule of inquiry for 1900, for each branch of the industry, viz, woolen mills, worsted mills, carpet mills, felt mills, and wool hat mills.

The six tables following Table 30 correspond thereto in form and scope, but contain statistics for each of the different branches of the industry segregated in these tables and shown by totals for each state and for the United States. Their titles are as follows:

Table 31—Woolen mills.

Table 32—Worsted mills.

Table 33—Carpet mills.

Table 34—Felt mills.

Table 35—Wool hat mills.

Table 36 contains statistics of custom carding mills.

Table 37 contains the statistics for wool scouring in 1900.

Table 38 contains the statistics for wool pulling in 1900.

Table 39 is a detailed presentation by totals for states and for the United States, showing the results of the inquiry relating to the shoddy manufacture.

Table 40 is a detailed statement of the fur hat manufacture in 1900, with the totals by states and for the United States.

Table 41 is a comparative summary for hosiery and knit goods for each census year, beginning with 1850, and contains all the items of inquiry common to the decades.

Table 42 exhibits a total for the United States under each item of the schedule of inquiry for 1900, for the hosiery and knit goods manufacture.

TABLE 29.—WOOL MANUFACTURE (EXCLUDING HOSIERY AND KNIT GOODS): COMPARATIVE

	STATES AND TERRITORIES.	Year.	Number of establishments.[1]	Capital.	SALARIED OFFICIALS, CLERKS, ETC.		AVERAGE NUMBER OF WAGE-EARNERS AND TOTAL WAGES.				
					Number.	Salaries.	Total.		Men, 16 years and over.	Women, 16 years and over.	Children, under 16 years.
							Average number.	Wages.			
1	United States	1900	1,414	$310,179,749	4,495	$6,455,495	159,108	$57,933,817	83,371	64,141	11,596
2		1890	1,693	245,886,743	[2]3,652	[2]4,057,695	154,271	54,339,775	78,550	64,944	10,777
3		1880	2,330	143,512,278	(3)	(3)	132,672	40,687,612	67,942	49,107	15,623
4		1870	3,208	121,451,059	(3)	(3)	105,071	35,928,150	53,400	39,150	12,521
5		[5]1860	1,476	38,814,422	(3)	(3)	50,419	11,699,630	29,852	20,567	(3)
6		[6]1850	1,675	31,971,631	(3)	(3)	45,438	(7)	26,559	18,879	(3)
7		1840	1,420	15,765,124	(3)	(4)	21,342	(4)	21,342	(3)	(3)
8	New England states	1900	488	177,844,108	2,086	3,350,088	82,472	31,230,772	46,540	31,424	4,508
9		1890	518	134,627,725	1,316	1,837,649	77,747	28,190,048	42,323	31,138	4,286
10		1880	564	75,522,666	.....	.....	67,582	21,390,036	34,939	25,712	6,931
11		1870	675	63,856,145	.....	.....	54,851	19,588,984	26,462	22,605	5,784
12		1860	420	24,700,353	.....	.....	30,130	7,032,555	16,993	13,137	.....
13		1850	482	17,667,892	.....	.....	22,520	.....	11,980	10,540	.....
14		1840	489	9,259,935	.....	.....	11,268	.....	11,268	.....	.....
15	Maine	1900	81	14,512,120	225	281,761	7,324	2,762,564	4,699	2,425	200
16		1890	78	9,456,830	126	136,841	5,067	1,824,670	3,162	1,755	150
17		1880	96	4,016,328	.....	.....	3,244	1,090,528	1,810	1,140	294
18		1870	108	4,187,745	.....	.....	3,104	1,065,151	1,592	1,287	225
19		1860	28	940,400	.....	.....	1,064	273,596	565	499	.....
20		1850	36	467,600	.....	.....	624	.....	310	314	.....
21		1840	24	316,105	.....	.....	532	.....	532	.....	.....
22	New Hampshire	1900	45	11,280,295	131	166,074	5,461	2,045,316	3,130	2,201	130
23		1890	52	12,015,721	120	161,908	6,102	2,190,657	3,160	2,758	184
24		1880	61	7,150,855	.....	.....	5,599	1,701,619	2,811	2,284	504
25		1870	82	5,626,100	.....	.....	5,081	1,788,894	2,259	2,328	494
26		1860	54	2,647,300	.....	.....	2,655	687,746	1,291	1,364	.....
27		1850	61	2,437,700	.....	.....	2,127	.....	926	1,201	.....
28		1840	66	740,345	.....	.....	893	.....	893	.....	.....
29	Vermont	1900	24	3,202,151	57	78,525	1,557	603,963	1,060	470	27
30		1890	29	3,304,382	44	42,475	1,541	582,965	903	601	37
31		1880	44	2,320,161	.....	.....	2,084	544,138	1,171	783	130
32		1870	66	2,330,900	.....	.....	1,895	649,628	935	759	201
33		1860	46	1,746,300	.....	.....	2,073	214,572	895	1,178	.....
34		1850	72	886,300	.....	.....	1,393	.....	683	710	.....
35		1840	95	1,406,950	.....	.....	1,450	.....	1,450	.....	.....
36	Massachusetts	1900	195	90,128,754	1,048	1,710,094	42,069	16,057,849	23,363	16,420	2,286
37		1890	219	66,568,586	624	926,458	37,739	13,732,316	20,636	15,391	1,712
38		1880	214	36,764,000	.....	.....	34,717	11,027,822	17,588	14,060	3,069
39		1870	226	26,722,900	.....	.....	28,025	9,809,718	13,228	11,961	2,836
40		1860	147	13,005,853	.....	.....	15,638	3,658,589	8,964	6,674	.....
41		1850	119	9,089,342	.....	.....	11,130	.....	6,167	4,963	.....
42		1840	144	4,179,850	.....	.....	5,076	.....	5,076	.....	.....
43	Rhode Island	1900	78	41,307,942	407	750,494	17,854	6,721,040	9,141	7,230	1,483
44		1890	69	24,310,743	246	333,073	17,541	6,228,686	8,703	7,111	1,727
45		1880	61	13,016,116	.....	.....	12,125	3,703,257	5,871	4,387	1,867
46		1870	76	10,467,500	.....	.....	7,894	2,862,492	3,644	3,184	1,066
47		1860	58	3,169,000	.....	.....	4,232	1,069,728	2,594	1,638	.....
48		1850	45	1,013,000	.....	.....	1,758	.....	987	771	.....
49		1840	41	685,350	.....	.....	961	.....	961	.....	.....
50	Connecticut	1900	65	17,412,846	218	363,140	8,207	3,040,040	5,147	2,678	382
51		1890	71	18,971,463	156	236,894	9,757	3,630,754	5,759	3,522	476
52		1880	88	12,255,206	.....	.....	9,813	3,322,672	5,688	3,058	1,067
53		1870	117	14,521,000	.....	.....	8,852	3,413,101	4,804	3,086	962
54		1860	87	3,191,500	.....	.....	4,468	1,128,324	2,684	1,784	.....
55		1850	149	3,773,950	.....	.....	5,488	.....	2,907	2,581	.....
56		1840	119	1,931,335	.....	.....	2,356	.....	2,356	.....	.....
57	Middle states	[8]1900	502	110,361,026	1,747	2,361,313	64,973	23,567,092	31,558	27,456	5,959
58		1890	652	86,140,259	1,412	1,527,627	62,345	22,401,695	29,582	27,416	5,347
59		1880	794	53,834,368	.....	.....	54,138	16,682,073	26,797	20,144	7,197
60		[8]1870	1,024	37,194,990	.....	.....	36,322	12,619,089	18,182	13,028	5,112
61		1860	659	10,472,728	.....	.....	16,121	3,717,095	9,928	6,193	.....
62		[8]1850	717	8,351,908	.....	.....	13,802	.....	8,549	5,253	.....
63		1840	620	5,519,175	.....	.....	8,464	.....	8,464	.....	.....
64	New York	1900	100	32,098,305	597	864,861	18,027	6,610,259	8,553	8,330	1,144
65		1890	138	26,853,583	357	462,984	17,336	6,133,609	7,814	8,213	1,309
66		1880	189	18,248,698	.....	.....	16,428	5,189,180	7,405	6,931	2,092
67		1870	272	14,451,232	.....	.....	12,487	4,315,710	6,199	4,583	1,705
68		1860	168	4,133,568	.....	.....	6,123	1,351,955	3,475	2,648	.....
69		1850	249	4,459,370	.....	.....	6,674	.....	4,262	2,412	.....
70		1840	323	3,469,349	.....	.....	4,636	.....	4,636	.....	.....
71	New Jersey	1900	43	18,924,677	210	376,450	8,232	2,574,566	3,877	3,626	729
72		1890	35	6,441,571	99	133,517	5,872	1,940,254	2,867	2,786	219
73		1880	37	2,991,125	.....	.....	4,072	1,152,754	2,287	1,118	667

[1] The number of establishments affords no clew to the growth or condition of the industry of wool manufacturing. This is due to the fact that in all censuses of the industry (except that of 1860) the custom carding mill has been counted as a wool factory, although it is not, in the modern use of the term, a factory, and ought not, therefore, to be included with the statistics of factory manufacture. The present census and that of 1890 have made such an elimination possible hereafter by a distinct statement of the statistics of custom carding mills.

[2] Includes proprietors and firm members, with their salaries, number only reported in 1900, but not included in this table.

[3] Not reported separately.

[4] Not reported.

SUMMARY, BY STATES AND TERRITORIES ARRANGED GEOGRAPHICALLY, 1840 TO 1900.

MACHINERY.				Miscellaneous expenses.	Cost of materials used.	PRINCIPAL MATERIALS—QUANTITIES CONSUMED.						Value of products.	
						Wool in condition purchased.			Raw cotton, and cotton warp, and yarn, not made in mill (pounds).	Animal hair and fur and noils, not made in mill (pounds).	Shoddy, not made in mill (pounds).		
Cards.	Combing machines.	Looms.	Spindles.			Total (pounds).	Foreign (pounds).	Domestic (pounds).					
6,605	1,451	74,190	3,511,099	$17,329,932	$181,159,127	394,369,523	136,434,961	257,934,562	98,632,196	35,111,063	34,496,508	$296,990,484	1
7,015	869	69,658	2,793,147	15,622,263	167,233,987	351,158,020	111,382,308	239,775,712	91,372,267	26,262,316	56,826,475	270,527,511	2
6,989	515	57,297	2,111,973	(4)	149,160,600	287,597,334	72,751,940	214,845,391	63,830,664	8,011,037	50,640,663	238,085,686	3
8,705	261	45,737	2,046,113	(4)	124,318,792	214,373,219	46,288,805	168,084,414	26,420,626	(3)	19,384,401	199,257,262	4
3,319	(4)	16,075	639,700	(4)	43,447,048	95,452,159	(4)	(3)	17,218,061	(3)	(3)	73,454,000	5
(4)	(4)	(4)	(4)	(4)	28,831,583	70,862,829	(3)	(3)	(3)	(3)	(3)	48,608,779	6
(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(3)	(4)	20,696,999	7
3,427	821	40,238	2,071,546	8,475,253	99,783,297	224,826,710	62,874,851	161,951,859	39,135,944	8,530,697	24,485,828	161,566,277	8
3,762	519	33,348	1,570,097	9,143,764	86,887,689	195,867,736	58,429,807	137,437,929	30,833,876	9,366,220	35,721,895	139,302,134	9
3,396	302	30,692	1,246,100	.....	80,152,160	163,763,773	43,475,554	120,288,219	26,775,273	2,441,485	28,653,694	130,014,752	10
3,471	225	21,865	1,206,717	.....	68,819,733	123,791,815	30,295,579	93,496,236	11,479,564	.....	10,917,494	108,295,425	11
1,774	.....	8,920	393,333	.....	29,570,028	67,702,407	.....	.....	11,883,078	.....	.....	47,722,814	12
.....	.....	.....	.....	.....	16,055,233	43,118,059	.....	.....	.....	.....	.....	26,077,812	13
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	12,959,486	14
437	19	2,802	181,621	860,447	8,142,820	20,240,598	3,154,524	17,086,074	3,287,412	2,280,861	3,094,185	13,744,126	15
387	5	2,020	126,418	593,305	5,675,347	13,782,749	1,744,381	12,038,368	2,639,862	1,346,818	1,515,035	8,737,653	16
274	.....	1,103	68,192	.....	4,413,190	9,074,011	1,085,606	7,988,405	1,576,462	402,707	1,302,789	6,959,003	17
335	.....	1,161	66,649	.....	4,013,759	7,721,228	382,727	7,338,501	769,363	.....	.....	6,483,881	18
80	.....	185	11,765	.....	1,035,876	2,454,300	.....	.....	82,500	.....	.....	1,759,007	19
.....	.....	.....	.....	.....	495,940	1,438,434	.....	.....	.....	.....	.....	753,300	20
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	412,366	21
335	34	5,312	146,292	455,398	6,636,567	16,218,609	1,581,498	14,637,111	6,760,375	179,362	4,181,362	10,381,056	22
380	29	4,049	136,648	617,052	7,024,461	18,696,016	4,854,212	13,841,804	4,308,465	150,056	3,424,970	10,963,250	23
317	21	2,884	138,223	.....	6,605,355	15,172,837	2,379,575	12,793,262	2,871,944	50,362	3,115,390	10,858,071	24
360	12	1,695	125,079	.....	6,569,028	11,832,666	1,968,869	9,863,797	1,670,994	.....	1,380,000	10,513,226	25
204	.....	696	36,320	.....	2,775,026	5,505,106	.....	.....	861,000	.....	.....	4,358,713	26
.....	.....	.....	.....	.....	1,267,329	3,604,103	.....	.....	.....	.....	.....	2,127,745	27
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	795,784	28
124	.....	775	39,208	131,575	1,732,372	3,170,502	341,902	2,828,600	570,799	90,058	822,069	2,822,646	29
120	.....	682	41,839	178,385	1,435,163	3,940,070	1,279,250	2,660,820	659,601	8,650	1,562,221	2,723,683	30
145	.....	746	46,264	.....	2,012,490	3,603,191	161,404	3,441,787	640,470	7,598	2,286,150	3,217,807	31
177	.....	670	49,255	.....	1,955,972	4,611,347	1,120,680	3,490,667	77,800	.....	225,967	3,644,459	32
99	.....	463	23,371	.....	1,662,650	4,047,010	.....	.....	279,500	.....	.....	2,938,626	33
.....	.....	.....	.....	.....	830,684	2,328,100	.....	.....	.....	.....	.....	1,679,161	34
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,331,953	35
1,594	424	19,746	952,854	4,019,232	49,120,181	118,682,087	42,586,492	76,095,595	17,382,063	3,767,134	9,808,403	81,041,537	36
1,785	265	16,349	739,952	4,584,917	42,273,379	97,757,379	34,930,030	62,827,349	15,160,584	6,770,990	21,608,371	67,599,321	37
1,622	190	15,863	588,941	.....	40,283,171	84,929,798	28,011,595	56,918,203	13,704,566	1,751,208	13,017,085	64,968,209	38
1,433	172	11,662	567,611	.....	33,795,994	63,499,752	20,189,746	43,310,006	5,056,357	.....	5,994,110	52,270,608	38
873	.....	4,237	159,651	.....	15,367,378	39,731,072	.....	.....	5,871,370	.....	.....	24,015,443	40
.....	.....	.....	.....	.....	8,671,671	22,229,952	.....	.....	.....	.....	.....	12,770,565	41
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7,082,898	42
478	287	8,007	529,219	2,153,422	25,087,370	51,727,800	10,710,322	41,017,478	7,709,524	1,147,471	2,103,887	39,042,660	43
558	193	6,608	340,326	1,868,032	19,976,086	39,973,992	8,929,242	31,044,750	4,095,989	317,184	2,168,503	32,205,829	44
495	70	6,957	228,262	.....	13,079,812	27,141,974	4,469,088	22,672,886	4,783,289	166,893	2,027,782	21,588,204	45
484	7	3,383	215,973	.....	9,826,158	14,421,967	772,247	13,649,720	1,697,139	.....	919,000	15,394,067	46
253	.....	1,586	86,048	.....	4,071,464	6,835,100	.....	.....	3,056,200	.....	.....	6,917,705	47
.....	.....	.....	.....	.....	1,463,900	4,103,370	.....	.....	.....	.....	.....	2,381,825	48
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	842,172	49
459	57	3,596	222,352	855,179	9,063,987	14,787,114	4,500,113	10,287,001	3,425,771	1,065,811	4,475,922	14,534,252	50
532	27	3,640	184,914	1,302,073	10,503,253	21,717,530	6,692,692	15,024,838	3,969,375	772,522	5,442,795	17,072,398	51
543	21	3,139	176,218	.....	13,728,142	28,841,962	7,368,286	16,473,676	3,198,542	62,717	6,903,998	22,423,458	52
682	34	3,294	182,150	.....	12,658,822	21,704,855	5,861,310	15,843,545	2,207,911	.....	2,398,417	19,989,184	53
265	.....	1,753	76,178	.....	4,057,634	9,129,819	.....	.....	1,732,508	.....	.....	7,733,320	54
.....	.....	.....	.....	.....	3,325,709	9,414,100	.....	.....	.....	.....	.....	6,465,216	55
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,494,313	56
2,277	601	27,531	1,116,158	7,681,003	71,116,948	138,554,768	71,646,991	66,907,777	49,940,939	26,492,962	7,877,940	118,258,243	57
2,203	301	29,002	914,990	5,046,720	68,103,765	118,634,796	50,706,698	67,928,098	54,972,659	16,823,593	18,913,964	110,911,526	58
2,154	210	22,206	638,481	.....	57,908,066	95,389,023	28,976,586	66,412,637	33,857,475	5,463,552	20,951,183	91,136,451	59
2,558	36	18,291	554,247	.....	41,941,018	61,166,252	15,834,201	45,332,051	13,321,576	.....	8,457,123	68,467,540	60
920	.....	6,132	210,054	.....	10,938,446	18,910,319	.....	.....	4,943,183	.....	.....	20,386,330	61
.....	.....	.....	.....	.....	8,040,747	22,437,754	.....	.....	.....	.....	.....	14,065,456	62
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6,637,708	63
748	116	6,269	274,009	1,728,288	16,364,607	44,239,280	25,546,837	18,692,443	8,356,734	2,259,538	648,362	30,813,339	64
702	84	5,025	344,847	1,235,146	16,759,138	35,305,969	21,345,999	13,959,970	7,781,739	2,074,631	1,617,481	28,563,569	65
830	80	8,870	198,420	.....	14,478,735	29,987,847	13,495,159	16,492,688	4,434,013	1,394,947	2,166,471	25,078,747	66
940	1	3,860	166,260	.....	11,676,379	25,518,652	9,305,779	16,212,873	1,186,659	.....	452,990	19,609,021	67
324	.....	1,686	87,887	.....	4,311,116	8,535,498	.....	.....	193,683	.....	.....	7,498,077	68
.....	.....	.....	.....	.....	3,838,292	12,538,786	.....	.....	.....	.....	.....	7,030,604	69
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3,537,337	70
207	128	3,576	176,340	1,052,701	8,495,338	18,669,055	5,646,754	13,022,301	2,919,438	91,185	195,983	13,799,284	71
202	29	1,533	77,069	547,886	5,450,490	12,524,210	1,348,047	11,176,163	2,625,882	490,110	2,927,640	8,893,237	72
161	9	1,285	35,791	.....	3,858,992	6,990,378	655,001	6,335,377	1,559,502	1,107,749	2,676,856	5,967,893	73

[5] Carding mills were not included in the report of the woolen industry of 1860, and are therefore not included in the figures for that year in the above table. There were 712 of these establishments, with a total capital of $1,080,985, employing 1,276 hands, who received $286,267. They used 5,230,651 pounds of wool, and produced 5,091,196 pounds of wool rolls, valued at $2,403,513.

[6] The details of the carpet industry were not given by states in 1850. The totals, however, have been added to the "total for the United States" in this table, the figures being as follows: Establishments, 116; capital, $3,852,981; number of employees, 6,186; cost of materials used, $3,075,592, and value of products, $5,401,234.

[7] This item was not fully reported at the census of 1850.

[8] Includes reports from establishments distributed as follows: 1900—Delaware, 2. 1870—District of Columbia, 1. 1850—District of Columbia, 1.

TABLE 29.—WOOL MANUFACTURE (EXCLUDING HOSIERY AND KNIT GOODS): COMPARATIVE

	STATES AND TERRITORIES.	Year.	Number of establishments.[1]	Capital.	SALARIED OFFICIALS, CLERKS, ETC.		AVERAGE NUMBER OF WAGE-EARNERS AND TOTAL WAGES.				
					Number.	Salaries.	Total.		Men, 16 years and over.	Women, 16 years and over.	Children, under 16 years.
							Average number.	Wages.			
	Middle states—Continued:										
74	New Jersey	1870	36	$1,524,200	.....	.....	1,522	$493,054	709	552	261
75		1860	45	646,200	.....	.....	986	226,788	608	378	.....
76		1850	41	494,274	.....	.....	898	.....	411	487	.....
77		1840	31	314,650	.....	.....	427	.....	427	.....	.....
78	Pennsylvania	1900	353	57,696,913	900	$1,067,315	37,550	$14,045,869	18,412	15,220	3,918
79		1890	467	52,021,256	940	914,378	38,473	14,117,254	18,572	16,189	3,712
80		1880	548	31,898,226	.....	.....	32,989	10,162,244	16,688	11,936	4,365
81		1870	672	20,615,413	.....	.....	21,573	7,607,489	10,831	7,714	3,028
82		1860	407	5,211,510	.....	.....	8,484	2,016,384	5,488	2,996	.....
83		1850	380	3,005,064	.....	.....	5,726	.....	3,490	2,236	.....
84		1840	235	1,510,546	.....	.....	2,930	.....	2,930	.....	.....
85	Delaware	[2]1900	.....	.....	.....	.....	.....	.....	.....	.....	.....
86		1890	3	450,974	9	12,298	288	91,097	139	110	39
87		1880	5	352,559	.....	.....	261	108,504	171	59	31
88		1870	11	384,500	.....	.....	399	115,137	186	110	103
89		1860	4	117,000	.....	.....	114	27,964	76	38	.....
90		1850	8	148,500	.....	.....	140	.....	122	18	.....
91		1840	2	107,000	.....	.....	83	.....	83	.....	.....
92	Maryland	[3]1900	4	1,330,549	25	35,625	877	221,215	576	204	97
93		1890	9	372,875	7	4,450	376	119,481	190	118	68
94		1880	15	343,760	.....	.....	388	69,391	246	100	42
95		1870	32	215,245	.....	.....	339	87,099	255	69	15
96		1860	35	364,450	.....	.....	414	94,404	281	133	.....
97		1850	38	244,000	.....	.....	362	.....	262	100	.....
98		1840	29	117,630	.....	.....	388	.....	388	.....	.....
99	Southern states	[4]1900	214	7,591,498	214	234,875	4,700	979,188	1,902	2,037	761
100		1890	222	7,894,776	325	226,117	5,392	1,338,729	2,303	2,421	668
101		1880	447	2,994,517	.....	.....	2,645	493,634	1,498	745	402
102		1870	589	3,327,952	.....	.....	2,888	575,529	1,831	669	388
103		1860	115	1,744,100	.....	.....	2,205	418,368	1,429	776	.....
104		1850	155	747,360	.....	.....	1,119	.....	808	311	.....
105		1840	115	304,650	.....	.....	488	.....	488	.....	.....
106	Virginia	1900	28	783,527	39	37,667	362	103,773	214	127	21
107		1890	35	845,221	45	22,995	399	94,028	249	119	31
108		1880	48	456,750	.....	.....	365	71,720	251	95	19
109		1870	68	435,375	.....	.....	278	58,765	190	56	32
110		1860	45	463,600	.....	.....	494	106,692	381	113	.....
111		1850	121	392,640	.....	.....	668	.....	478	190	.....
112		1840	41	112,350	.....	.....	222	.....	222	.....	.....
113	West Virginia	1900	34	721,218	16	17,440	414	113,960	249	145	20
114		1890	30	336,281	34	11,512	253	50,407	138	104	11
115		1880	55	293,170	.....	.....	353	44,161	226	96	31
116		1870	74	236,100	.....	.....	316	59,828	207	79	30
117		[5]1860	.....	.....	.....	.....	.....	.....	.....	.....	.....
118		[5]1850	.....	.....	.....	.....	.....	.....	.....	.....	.....
119		[5]1840	.....	.....	.....	.....	.....	.....	.....	.....	.....
120	North Carolina	1900	16	347,830	17	9,065	206	39,094	106	91	9
121		1890	27	339,088	25	10,411	299	54,918	145	125	29
122		1880	49	203,100	.....	.....	185	23,195	120	50	15
123		1870	52	237,800	.....	.....	249	39,101	151	81	17
124		1860	7	223,000	.....	.....	253	60,036	113	140	.....
125		1850	1	18,000	.....	.....	30	.....	15	15	.....
126		1840	3	9,800	.....	.....	4	.....	4	.....	.....
127	South Carolina	[4]1900	.....	.....	.....	.....	.....	.....	.....	.....	.....
128		[6]1890	.....	.....	.....	.....	.....	.....	.....	.....	.....
129		1880	11	7,900	.....	.....	13	1,173	13	.....	.....
130		1870	15	25,900	.....	.....	53	3,815	32	13	8
131		1860	1	50,000	.....	.....	92	11,400	37	55	.....
132		[5]1850	.....	.....	.....	.....	.....	.....	.....	.....	.....
133		1840	3	4,300	.....	.....	6	.....	6	.....	.....
134	Georgia	1900	14	455,114	13	16,936	561	97,159	284	189	88
135		1890	14	298,539	17	9,367	162	23,034	64	71	27
136		1880	32	180,733	.....	.....	142	25,070	72	45	25
137		1870	46	936,585	.....	.....	563	122,138	251	191	121
138		1860	11	242,500	.....	.....	383	63,348	167	216	.....
139		1850	3	68,000	.....	.....	78	.....	40	38	.....
140		1840	1	2,000	.....	.....	10	.....	10	.....	.....
141	Kentucky	1900	37	1,922,574	25	41,472	868	190,148	184	454	230
142		1890	42	2,705,683	90	89,478	1,904	503,827	804	922	178
143		1880	98	890,750	.....	.....	823	166,189	353	253	217
144		1870	125	700,449	.....	.....	683	159,373	454	137	92
145		1860	37	408,500	.....	.....	437	103,284	350	87	.....
146		1850	25	249,820	.....	.....	318	.....	256	62	.....
147		1840	40	138,000	.....	.....	200	.....	200	.....	.....
148	Tennessee	1900	51	2,399,518	64	67,673	1,632	294,116	557	759	316
149		1890	49	1,393,679	71	48,620	927	191,037	359	444	124
150		1880	106	418,664	.....	.....	402	67,063	249	111	42
151		1870	148	373,868	.....	.....	428	62,780	342	61	25
152		1860	1	6,000	.....	.....	10	2,472	8	2	.....
153		1850	4	10,900	.....	.....	17	.....	15	2	.....
154		1840	26	25,600	.....	.....	45	.....	45	.....	.....

[1] The number of establishments affords no clew to the growth or condition of the industry of wool manufacturing. This is due to the fact that in all censuses of the industry (except that of 1860) the custom carding mill has been counted as a wool factory, although it is not, in the modern use of the term, a factory, and ought not, therefore, to be included with the statistics of factory manufacture. The present census and that of 1890 have made such an elimination possible hereafter by a distinct statement of the statistics of custom carding mills.

[2] Includes reports from establishments distributed as follows: 1900—Delaware, 2. 1870—District of Columbia, 1. 1850—District of Columbia, 1.

SUMMARY, BY STATES AND TERRITORIES ARRANGED GEOGRAPHICALLY, 1840 TO 1900—Continued.

MACHINERY.				Miscellaneous expenses.	Cost of materials used.	PRINCIPAL MATERIALS—QUANTITIES CONSUMED.						Value of products.	
						Wool in condition purchased.			Raw cotton, and cotton warp, and yarn, not made in mill (pounds).	Animal hair and fur and noils, not made in mill (pounds).	Shoddy not made in mill (pounds).		
Cards.	Combing machines.	Looms.	Spindles.			Total (pounds).	Foreign (pounds).	Domestic (pounds).					
98	.....	776	26,769	.....	$1,618,753	2,856,525	480,347	2,376,178	407,398	.....	27,000	$2,616,461	74
61	.....	270	10,361	.....	596,895	1,443,800	.....	.....	239,500	.....	.....	1,197,694	75
.....	.....	.....	.....	.....	548,367	1,510,289	.....	.....	.....	.....	.....	1,164,446	76
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	440,710	77
1,262	357	17,265	641,657	$1,833,661	45,137,649	73,162,801	40,453,005	32,709,796	37,640,684	24,142,239	6,874,350	71,878,503	78
1,254	188	22,101	474,618	3,221,842	45,173,677	69,387,219	27,877,283	41,509,936	44,218,488	14,258,852	14,232,953	72,393,182	79
1,120	121	16,789	393,387	.....	38,740,330	56,751,365	14,623,020	42,128,345	27,771,271	2,940,522	15,463,878	58,886,250	80
1,429	29	13,265	340,114	.....	28,010,301	31,723,147	6,014,170	25,708,977	11,504,634	.....	7,879,203	45,221,795	81
483	.....	4,334	108,326	.....	5,674,197	7,703,249	.....	.....	4,337,000	.....	.....	10,901,767	82
.....	.....	.....	.....	.....	3,282,718	7,560,379	.....	.....	.....	.....	.....	5,321,866	83
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,319,061	84
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	85
15	.....	229	7,306	27,404	295,605	531,198	35,369	495,829	314,500	.....	95,890	482,022	86
13	.....	126	4,306	.....	448,285	836,883	203,206	633,677	55,100	20,084	346,778	665,253	87
30	.....	227	8,756	.....	392,614	546,187	12,455	533,732	185,000	.....	96,930	576,067	88
8	.....	76	1,000	.....	75,807	140,000	.....	.....	100,000	.....	.....	153,035	89
.....	.....	.....	.....	.....	204,172	393,000	.....	.....	.....	.....	.....	251,000	90
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	104,700	91
47	.....	179	15,828	54,181	667,036	1,938,908	.....	1,938,908	637,730	.....	58,326	1,218,378	92
30	.....	114	11,150	14,442	424,855	886,200	100,000	786,200	32,050	.....	40,000	579,516	93
30	.....	136	6,580	.....	381,724	822,550	.....	822,550	37,589	250	297,200	538,308	94
61	.....	160	12,348	.....	241,224	521,741	21,450	500,291	37,885	.....	1,000	441,596	95
44	.....	66	2,480	.....	280,431	1,087,772	.....	.....	73,000	.....	.....	635,757	96
.....	.....	.....	.....	.....	165,568	430,300	.....	.....	.....	.....	.....	295,140	97
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	235,900	98
373	15	3,291	123,869	299,046	3,493,870	7,948,193	512,883	7,435,310	7,235,610	1,550	1,060,458	5,588,416	99
385	4	3,788	106,541	362,477	4,000,966	8,730,576	357,790	8,372,786	5,395,513	61,741	1,188,847	6,700,545	100
549	.....	1,315	47,989	.....	2,736,023	6,021,980	85,000	5,936,980	1,455,408	500	279,647	3,958,571	101
908	.....	1,322	50,311	.....	2,715,827	5,912,589	1,200	5,911,389	616,459	.....	2,762	4,278,311	102
232	.....	296	16,541	.....	1,634,730	5,042,682	.....	.....	421,800	.....	.....	2,840,550	103
.....	.....	.....	.....	.....	750,203	2,448,026	.....	.....	.....	.....	.....	1,293,642	104
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	321,357	105
52	2	221	14,322	22,780	391,659	1,184,231	9,000	1,175,231	101,434	.....	124,351	627,581	106
54	.....	212	12,382	13,972	375,175	975,745	25,367	950,378	105,112	1,500	88,585	609,809	107
54	.....	154	8,486	.....	383,080	862,812	5,000	857,812	104,170	500	60,500	577,968	108
116	.....	137	6,236	.....	317,800	742,200	1,200	741,000	27,260	.....	.....	488,352	109
50	.....	121	7,574	.....	389,204	1,131,000	.....	.....	10,000	.....	.....	717,827	110
.....	.....	.....	.....	.....	488,899	1,554,110	.....	.....	.....	.....	.....	841,013	111
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	147,792	112
53	1	258	14,180	32,649	359,753	843,959	3,000	840,959	262,417	.....	135,912	567,300	113
41	.....	153	7,164	15,418	202,801	600,823	5,001	595,822	31,209	.....	9,632	328,800	114
72	.....	179	8,081	.....	245,843	602,399	.....	602,399	4,000	.....	33,819	356,986	115
132	.....	120	6,387	.....	307,051	673,003	.....	673,003	.....	.....	.....	475,763	116
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	117
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	118
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	119
25	.....	161	5,334	14,527	204,961	577,750	.....	577,750	96,763	.....	38,365	289,506	120
35	.....	169	10,990	14,758	198,358	449,260	50,760	398,500	282,860	40,374	40,000	308,946	121
57	.....	30	2,374	.....	255,707	576,145	80,000	496,145	118,464	.....	12,444	303,160	122
78	.....	97	2,806	.....	166,497	355,693	.....	355,693	10,000	.....	.....	298,638	123
23	.....	20	1,000	.....	151,005	504,500	.....	.....	.....	.....	.....	291,000	124
.....	.....	.....	.....	.....	13,950	30,000	.....	.....	.....	.....	.....	23,750	125
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3,900	126
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	127
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	128
11	.....	.....	.....	.....	19,455	48,950	.....	48,950	.....	.....	.....	24,075	129
25	.....	9	350	.....	22,238	55,696	.....	55,696	1,300	.....	700	34,459	130
10	.....	.....	.....	.....	60,000	250,000	.....	.....	.....	.....	.....	80,000	131
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	132
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,000	133
31	3	503	11,008	22,430	280,295	272,678	5,200	267,478	1,718,472	1,550	111,357	491,001	134
20	.....	119	3,552	10,887	95,999	208,992	32,000	176,992	87,815	19,867	10,000	173,245	135
42	.....	88	2,224	.....	165,065	366,274	.....	366,274	134,418	.....	.....	239,390	136
72	.....	395	14,465	.....	268,176	620,937	.....	620,937	165,000	.....	.....	471,523	137
30	.....	20	1,480	.....	260,475	1,008,600	.....	.....	142,500	.....	.....	464,420	138
.....	.....	.....	.....	.....	30,392	153,816	.....	.....	.....	.....	.....	88,750	139
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3,000	140
58	9	533	27,695	59,894	974,417	2,747,742	393,917	2,353,825	1,437,569	.....	144,124	1,431,684	141
100	4	1,661	40,316	184,343	1,631,860	2,828,377	57,037	2,771,340	2,892,500	.....	785,940	2,721,968	142
154	.....	513	14,110	.....	852,405	1,688,663	.....	1,688,663	667,444	.....	117,151	1,264,988	143
208	.....	322	10,509	.....	831,628	1,639,367	.....	1,639,367	275,250	.....	.....	1,312,458	144
83	.....	94	3,990	.....	510,902	1,452,500	.....	.....	170,700	.....	.....	845,226	145
.....	.....	.....	.....	.....	205,287	673,900	.....	.....	.....	.....	.....	318,819	146
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	151,246	147
99	.....	1,239	38,654	86,111	874,359	1,523,442	101,766	1,421,676	3,189,821	.....	487,089	1,517,194	148
80	.....	925	19,938	56,263	760,036	1,448,486	187,625	1,260,861	1,462,967	.....	197,690	1,216,419	149
98	.....	167	6,860	.....	423,054	883,338	.....	883,338	180,416	.....	55,433	620,724	150
177	.....	80	3,614	.....	503,737	1,030,153	.....	1,030,153	101,449	.....	2,062	696,844	151
1	.....	.....	500	.....	5,225	10,000	.....	.....	.....	.....	.....	8,100	152
.....	.....	.....	.....	.....	1,675	6,200	.....	.....	.....	.....	.....	6,310	153
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	14,290	154

[3] Maryland and the District of Columbia are classed in this table as Middle states for purposes of comparison.
[4] Includes reports from two establishments in South Carolina.
[5] No establishments reported.
[6] Included in "all other Southern states."

TABLE 29.—WOOL MANUFACTURE (EXCLUDING HOSIERY AND KNIT GOODS): COMPARATIVE

	STATES AND TERRITORIES.	Year.	Number of establishments.[1]	Capital.	SALARIED OFFICIALS, CLERKS, ETC.		AVERAGE NUMBER OF WAGE-EARNERS AND TOTAL WAGES				
					Number.	Salaries.	Total.		Men, 16 years and over.	Women, 16 years and over.	Children, under 16 years.
							Average number.	Wages.			
	Southern states—Continued.										
155	Alabama	1900	12	$153,303	4	$3,640	118	$17,695	25	90	3
156		1890	6	18,325	3	1,025	13	2,100	8	5	.....
157		1880	14	28,900	.....	.....	18	3,037	13	5	.....
158		1870	14	22,375	.....	.....	41	4,881	38	1	2
159		1860	6	140,000	.....	.....	198	34,116	95	103	.....
160		[2]1850	.....	.....	.....	.....	.....	.....	.....	.....	.....
161		[2]1840	.....	.....	.....	.....	.....	.....	.....	.....	.....
162	Mississippi	1900	4	315,700	5	10,166	302	55,192	146	111	45
163		1890	7	1,553,455	13	11,280	1,069	294,990	402	443	224
164		1880	8	331,500	.....	.....	218	53,100	111	61	46
165		1870	11	195,250	.....	.....	116	28,800	34	31	51
166		1860	4	75,500	.....	.....	235	22,620	202	33	.....
167		[2]1850	.....	.....	.....	.....	.....	.....	.....	.....	.....
168		[2]1840	.....	.....	.....	.....	.....	.....	.....	.....	.....
169	Arkansas	1900	13	43,525	3	903	27	5,158	14	11	2
170		1890	6	27,435	9	2,950	22	3,281	7	12	3
171		1880	25	85,550	.....	.....	90	13,226	62	21	7
172		1870	13	32,500	.....	.....	31	6,870	29	.....	2
173		[2]1860	.....	.....	.....	.....	.....	.....	.....	.....	.....
174		[2]1850	.....	.....	.....	.....	.....	.....	.....	.....	.....
175		1840	1	12,600	.....	.....	1	.....	1	.....	.....
176	Texas	1900	3	285,663	10	15,763	134	40,674	76	34	24
177		1890	4	371,270	17	18,115	342	120,680	125	176	41
178		1880	1	97,500	.....	.....	36	25,700	28	8	.....
179		1870	20	97,250	.....	.....	100	20,278	80	16	4
180		1860	2	60,000	.....	.....	43	7,680	36	7	.....
181		1850	1	8,000	.....	.....	8	.....	4	4	.....
182		[2]1840	.....	.....	.....	.....	.....	.....	.....	.....	.....
183	All other Southern states[3]	1900	.....	.....	.....	.....	.....	.....	.....	.....	.....
184		1890	2	5,800	1	364	2	427	2	.....	.....
185		1880	.....	.....	.....	.....	.....	.....	.....	.....	.....
186		1870	3	34,500	.....	.....	30	8,900	23	3	4
187		1860	1	75,000	.....	.....	60	6,720	40	20	.....
188		[2]1850	.....	.....	.....	.....	.....	.....	.....	.....	.....
189		[2]1840	.....	.....	.....	.....	.....	.....	.....	.....	.....
190	Western states	1900	194	12,156,823	401	450,939	5,861	1,788,245	2,684	2,861	316
191		1890	287	13,254,918	513	391,937	7,207	2,020,697	3,261	3,517	429
192		1880	505	8,877,427	.....	.....	7,227	1,697,463	3,816	2,357	1,054
193		1870	906	14,897,772	.....	.....	10,172	2,802,135	6,212	2,809	1,151
194		1860	280	1,727,241	.....	.....	1,873	481,812	1,435	438	.....
195		1850	205	1,351,490	.....	.....	1,811	.....	1,341	470	.....
196		1840	196	681,364	.....	.....	1,122	.....	1,122	.....	.....
197	Ohio	1900	38	2,709,986	84	94,805	1,234	383,848	408	797	29
198		1890	69	2,479,872	106	85,224	1,325	363,802	581	590	154
199		1880	123	1,383,340	.....	.....	1,432	279,614	773	445	214
200		1870	225	3,066,969	.....	.....	2,329	574,164	1,351	710	268
201		1860	122	662,000	.....	.....	753	185,268	567	186	.....
202		1850	130	870,220	.....	.....	1,201	.....	903	298	.....
203		1840	120	537,985	.....	.....	935	.....	935	.....	.....
204	Michigan	1900	17	920,609	29	27,769	512	170,568	323	189	.....
205		1890	33	998,087	44	25,063	536	156,740	284	221	31
206		1880	39	558,800	.....	.....	347	76,240	203	114	30
207		1870	54	1,011,050	.....	.....	667	202,813	408	208	51
208		1860	16	103,950	.....	.....	126	30,672	77	49	.....
209		1850	15	94,000	.....	.....	129	.....	78	51	.....
210		1840	4	34,120	.....	.....	37	.....	37	.....	.....
211	Indiana	1900	22	2,069,232	72	77,443	1,165	341,472	495	624	46
212		1890	46	2,969,356	108	87,829	2,039	522,039	810	1,117	112
213		1880	81	2,273,705	.....	.....	1,741	462,681	846	587	308
214		1870	175	3,821,913	.....	.....	2,469	726,113	1,450	711	308
215		1860	79	464,341	.....	.....	533	150,276	436	97	.....
216		1850	33	171,545	.....	.....	246	.....	189	57	.....
217		1840	37	77,954	.....	.....	103	.....	103	.....	.....
218	Wisconsin	1900	36	2,414,652	67	88,890	1,066	317,554	477	463	126
219		1890	33	2,496,377	69	63,570	1,018	297,169	454	553	11
220		1880	48	1,349,954	.....	.....	847	214,993	426	378	43
221		1870	67	1,247,389	.....	.....	802	230,706	519	211	72
222		1860	15	100,600	.....	.....	105	27,036	74	31	.....
223		1850	9	31,225	.....	.....	25	.....	25	.....	.....
224		[2]1840	.....	.....	.....	.....	.....	.....	.....	.....	.....
225	Illinois	1900	14	1,610,425	57	77,623	727	222,457	398	294	35
226		1890	23	1,649,918	49	40,783	865	272,997	433	405	27
227		1880	53	1,327,553	.....	.....	1,042	296,225	527	365	150
228		1870	109	2,962,443	.....	.....	1,736	535,185	1,040	468	228
229		1860	25	210,100	.....	.....	166	45,180	132	34	.....
230		1850	16	154,500	.....	.....	178	.....	124	54	.....
231		1840	16	26,205	.....	.....	34	.....	34	.....	.....
232	Minnesota	1900	19	762,825	20	23,450	300	90,662	160	119	21
233		1890	21	563,771	25	19,025	316	101,942	169	146	1
234		1880	13	190,500	.....	.....	229	46,108	106	73	50
235		1870	10	246,600	.....	.....	146	45,592	77	60	9
236		[2]1860	.....	.....	.....	.....	.....	.....	.....	.....	.....
237		[2]1850	.....	.....	.....	.....	.....	.....	.....	.....	.....
238		[2]1840	.....	.....	.....	.....	.....	.....	.....	.....	.....

[1] The number of establishments affords no clew to the growth or condition of the industry of wool manufacturing. This is due to the fact that in all censuses of the industry (except that of 1860) the custom carding mill has been counted as a wool factory, although it is not, in the modern use of the term, a factory, and ought not, therefore, to be included with the statistics of factory manufacture. The present census and that of 1890 have made such an elimination possible hereafter by a distinct statement of the statistics of custom carding mills.

SUMMARY BY STATES AND TERRITORIES ARRANGED GEOGRAPHICALLY, 1840 TO 1900—Continued.

MACHINERY.				Miscellaneous expenses.	Cost of materials used.	PRINCIPAL MATERIALS—QUANTITIES CONSUMED.						Value of products.	
						Wool in condition purchased.			Raw cotton, and cotton warp, and yarn, not made in mill (pounds).	Animal hair and fur and noils, not made in mill (pounds).	Shoddy, not made in mill (pounds).		
Cards.	Combing machines.	Looms.	Spindles.			Total (pounds).	Foreign (pounds).	Domestic (pounds).					
8	.....	72	160	$15,193	$58,197	129,041	.....	129,041	176,562	.....	.....	$94,571	155
6	.....	12	288	419	10,997	10,569	.....	10,569	7,500	.....	20,000	17,150	156
15	.....	10	160	.....	49,361	135,366	.....	135,366	10,000	.....	.....	63,745	157
24	.....	2	530	.....	57,338	196,500	.....	196,500	2,000	.....	.....	89,998	158
14	.....	20	1,000	.....	80,790	264,435	.....	.....	5,000	.....	.....	191,474	159
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	160
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	161
26	.....	130	8,916	17,817	103,308	244,434	.....	244,434	83,060	.....	.....	172,908	162
31	.....	376	9,196	18,054	508,039	1,565,824	.....	1,565,824	416,000	.....	36,000	924,185	163
15	.....	121	3,734	.....	211,646	494,033	.....	494,033	205,896	.....	.....	299,605	164
17	.....	30	344	.....	79,566	154,790	.....	154,790	32,700	.....	.....	147,323	165
13	.....	21	1,000	.....	119,849	270,597	.....	.....	75,600	.....	.....	158,507	166
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	167
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	168
16	.....	40	1,000	398	28,598	129,637	.....	129,637	14,000	.....	.....	42,401	169
7	.....	24	735	752	28,030	67,500	.....	67,500	5,550	.....	.....	38,360	170
29	.....	41	1,360	.....	85,972	189,000	.....	189,000	30,600	.....	300	127,430	171
17	.....	.....	.....	.....	55,782	115,330	.....	115,330	.....	.....	.....	78,690	172
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	173
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	174
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	129	175
4	.....	94	2,600	17,428	117,327	291,979	.....	291,979	86,700	.....	19,260	196,340	176
9	.....	135	1,900	17,333	188,607	572,400	.....	572,400	103,000	.....	1,000	359,230	177
2	.....	12	600	.....	41,435	175,000	.....	175,000	.....	.....	.....	80,500	178
29	.....	30	1,070	.....	86,817	278,045	.....	278,045	.....	.....	.....	152,968	179
4	.....	.....	.....	.....	25,980	81,900	.....	.....	18,000	.....	.....	38,796	180
.....	.....	.....	.....	.....	10,000	30,000	.....	.....	.....	.....	.....	15,000	181
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	182
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	183
2	.....	2	50	278	1,064	2,600	.....	2,600	1,000	.....	.....	2,433	184
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	185
13	.....	100	4,000	.....	19,197	50,875	.....	50,875	1,500	.....	.....	31,295	186
4	.....	.....	.....	.....	31,300	69,150	.....	.....	.....	.....	.....	45,200	187
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	188
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	189
463	11	2,813	176,407	722,046	5,889,712	18,996,587	1,400,236	17,596,351	2,145,184	85,854	958,481	9,992,370	190
574	15	3,133	176,869	814,072	7,125,149	22,859,293	1,743,013	21,116,280	2,956,355	10,762	943,658	11,673,341	191
807	3	2,786	156,012	.....	7,087,326	17,702,458	195,000	17,507,458	1,508,482	80,500	660,989	10,722,024	192
1,701	.....	3,984	226,638	.....	10,006,478	20,631,163	157,825	20,473,338	903,027	.....	5,225	16,607,375	193
383	.....	382	18,989	.....	1,226,844	3,246,751	.....	.....	.....	.....	.....	2,269,306	194
.....	.....	.....	.....	.....	909,808	2,858,990	.....	.....	.....	.....	.....	1,770,635	195
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	778,448	196
78	5	674	30,400	242,007	1,681,166	3,262,140	24,825	3,237,315	647,347	6,660	217,940	2,826,321	197
104	5	712	32,263	136,050	1,398,892	3,500,244	474,764	3,025,480	357,152	3,900	199,680	2,280,002	198
182	2	638	35,200	.....	1,153,929	2,695,424	165,000	2,530,424	310,824	80,000	134,063	1,779,439	199
334	.....	1,052	52,789	.....	2,119,869	3,972,234	62,200	3,910,034	175,464	.....	.....	3,467,699	200
173	.....	96	5,827	.....	482,994	1,190,751	.....	.....	.....	.....	.....	843,516	201
.....	.....	.....	.....	.....	578,423	1,657,726	.....	.....	.....	.....	.....	1,111,027	202
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	685,757	203
52	.....	159	14,707	49,676	641,133	2,360,454	953,981	1,406,473	58,650	.....	119,261	996,836	204
54	.....	158	13,559	60,280	603,374	2,033,321	408,026	1,625,295	2,440	.....	269,148	988,652	205
51	.....	167	10,688	.....	356,614	869,025	.....	869,025	5,310	.....	37,163	481,517	206
116	.....	232	15,650	.....	659,700	1,391,889	.....	1,391,889	3,550	.....	.....	1,204,868	207
14	.....	20	1,000	.....	69,010	163,100	.....	.....	.....	.....	.....	139,246	208
.....	.....	.....	.....	.....	43,402	162,250	.....	.....	.....	.....	.....	90,242	209
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	9,734	210
92	.....	919	46,864	112,428	970,562	3,552,301	400,000	3,152,301	848,443	1,194	88,235	1,658,965	211
135	4	1,006	46,690	235,503	1,880,515	6,324,884	632,833	5,692,051	1,961,374	600	154,303	3,036,682	212
160	1	814	36,886	.....	1,823,390	4,360,456	10,000	4,350,456	831,776	.....	345,656	2,729,347	213
346	.....	1,180	57,083	.....	2,684,315	5,029,618	80,157	4,949,461	513,595	.....	.....	4,329,711	214
112	.....	177	8,266	.....	352,362	940,000	.....	.....	.....	.....	.....	649,771	215
.....	.....	.....	.....	.....	120,486	413,350	.....	.....	.....	.....	.....	205,802	216
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	58,867	217
72	9	296	31,744	128,005	1,168,397	4,523,001	18,096	4,504,905	163,754	.....	308,033	1,864,420	218
63	6	258	24,802	124,124	1,117,013	3,125,572	164,090	2,961,482	111,323	6,262	196,274	1,844,364	219
75	.....	220	16,689	.....	892,793	2,066,188	.....	2,066,188	50,955	500	35,235	1,480,069	220
135	.....	226	16,445	.....	688,193	1,642,637	15,468	1,627,169	500	.....	.....	1,258,417	221
19	.....	20	1,000	.....	85,743	265,000	.....	.....	.....	.....	.....	172,720	222
.....	.....	.....	.....	.....	32,630	134,200	.....	.....	.....	.....	.....	87,992	223
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	224
46	.....	184	16,156	80,086	550,320	1,439,452	.....	1,439,452	66,717	78,000	128,244	1,039,087	225
57	.....	323	18,745	110,159	789,310	2,566,621	59,000	2,507,621	319,179	.....	67,253	1,299,506	226
106	.....	374	20,992	.....	1,332,798	3,003,740	.....	3,003,740	114,531	.....	83,007	1,896,460	227
250	.....	633	36,888	.....	1,701,323	3,560,829	.....	3,560,829	151,650	.....	.....	2,849,249	228
37	.....	20	1,000	.....	112,697	327,800	.....	.....	.....	.....	.....	193,388	229
.....	.....	.....	.....	.....	115,367	396,964	.....	.....	.....	.....	.....	206,572	230
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	9,540	231
38	.....	143	9,524	36,178	272,483	1,285,311	3,334	1,281,977	3,525	.....	8,475	496,812	232
37	.....	125	7,510	46,211	309,378	1,358,280	.....	1,358,280	.....	.....	4,000	539,995	233
21	.....	59	3,852	.....	155,867	557,580	20,000	537,580	6,365	.....	18,000	253,378	234
19	.....	39	2,664	.....	108,540	254,857	.....	254,857	.....	.....	.....	219,862	235
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	236
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	237
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	238

[2] No establishments reported.
[3] Includes establishments distributed as follows: 1900–1890—Louisiana, 1; South Carolina, 1. 1870—Louisiana, 2; Florida, 1. 1860—Louisiana, 1.

TABLE 29.—WOOL MANUFACTURE (EXCLUDING HOSIERY AND KNIT GOODS): COMPARATIVE

	STATES AND TERRITORIES.	Year.	Number of establishments.[1]	Capital.	SALARIED OFFICIALS, CLERKS, ETC.		AVERAGE NUMBER OF WAGE-EARNERS AND TOTAL WAGES.				
					Number.	Salaries.	Total.		Men, 16 years and over.	Women, 16 years and over.	Children, under 16 years.
							Average number.	Wages.			
	Western states—Continued.										
239	Iowa	1900	12	$494,074	26	$16,611	256	$64,596	126	128	2
240		1890	14	694,600	38	28,850	340	104,390	150	174	16
241		1880	34	553,500	.....	.....	499	117,792	307	132	60
242		1870	85	1,440,484	.....	.....	1,088	269,432	685	293	110
243		1860	12	82,500	.....	.....	120	23,652	96	24	.....
244		1850	1	10,000	.....	.....	7	.....	7	.....	.....
245		[2]1840	.....	.....	.....	.....	.....	.....	.....	.....	.....
246	Missouri	1900	25	490,747	18	20,928	237	63,314	139	79	19
247		1890	35	720,616	54	25,288	456	97,122	209	188	59
248		1880	98	726,150	.....	.....	689	109,877	412	144	133
249		1870	156	716,524	.....	.....	718	137,408	548	85	85
250		1860	11	103,750	.....	.....	70	19,728	53	17	.....
251		1850	1	20,000	.....	.....	25	.....	15	10	.....
252		1840	9	5,100	.....	.....	13	.....	13	.....	.....
253	Kansas	[3]1900	.....	.....	.....	.....	.....	.....	.....	.....	.....
254		[3]1890	.....	.....	.....	.....	.....	.....	.....	.....	.....
255		1880	5	131,925	.....	.....	124	25,825	66	40	18
256		1870	9	96,000	.....	.....	91	30,682	56	24	11
257		[2]1860	.....	.....	.....	.....	.....	.....	.....	.....	.....
258		[2]1850	.....	.....	.....	.....	.....	.....	.....	.....	.....
259		[2]1840	.....	.....	.....	.....	.....	.....	.....	.....	.....
260	Utah	1900	6	454,981	14	10,050	194	69,681	100	65	29
261		1890	9	579,209	15	13,505	259	90,651	150	95	14
262		1880	11	382,000	.....	.....	277	68,108	150	79	48
263		1870	15	223,400	.....	.....	106	48,040	58	39	9
264		[2]1860	.....	.....	.....	.....	.....	.....	.....	.....	.....
265		[2]1850	.....	.....	.....	.....	.....	.....	.....	.....	.....
266		[2]1840	.....	.....	.....	.....	.....	.....	.....	.....	.....
267	All other Western states[4]	1900	5	229,292	14	13,370	170	64,093	58	103	9
268		1890	4	103,112	5	2,800	53	13,845	21	28	4
269		1880	.....	.....	.....	.....	.....	.....	.....	.....	.....
270		1870	1	65,000	.....	.....	20	2,000	20	.....	.....
271		[2]1860	.....	.....	.....	.....	.....	.....	.....	.....	.....
272		[2]1850	.....	.....	.....	.....	.....	.....	.....	.....	.....
273		[2]1840	.....	.....	.....	.....	.....	.....	.....	.....	.....
274	Pacific states	1900	16	2,226,294	47	58,280	1,102	368,520	687	363	52
275		1890	14	3,969,065	86	74,365	1,580	388,606	1,081	452	47
276		[5]1880	20	2,283,300	.....	.....	1,080	424,406	892	149	39
277		1870	14	2,174,200	.....	.....	838	342,413	713	39	86
278		1860	2	170,000	.....	.....	90	49,800	67	23	.....
279		[2]1850	.....	.....	.....	.....	.....	.....	.....	.....	.....
280		[2]1840	.....	.....	.....	.....	.....	.....	.....	.....	.....
281	Oregon	1900	11	1,175,820	29	32,820	672	208,695	423	216	33
282		1890	6	1,350,585	44	32,775	358	142,538	201	134	23
283		1880	10	566,800	.....	.....	216	86,088	166	33	17
284		1870	9	389,200	.....	.....	179	112,213	129	8	42
285		1860	1	70,000	.....	.....	30	16,200	27	3	.....
286		[2]1850	.....	.....	.....	.....	.....	.....	.....	.....	.....
287		[2]1840	.....	.....	.....	.....	.....	.....	.....	.....	.....
288	California	1900	5	1,050,474	18	25,460	430	159,825	264	147	19
289		1890	8	2,618,480	42	41,590	1,222	246,068	880	318	24
290		1880	9	1,676,500	.....	.....	835	334,318	708	108	19
291		1870	5	1,785,000	.....	.....	659	230,200	584	31	44
292		1860	1	100,000	.....	.....	60	33,600	40	20	.....
293		[2]1850	.....	.....	.....	.....	.....	.....	.....	.....	.....
294		[2]1840	.....	.....	.....	.....	.....	.....	.....	.....	.....

[1] The number of establishments affords no clew to the growth or condition of the industry of wool manufacturing. This is due to the fact that in all censuses of the industry (except that of 1860) the custom carding mill has been counted as a wool factory, although it is not, in the modern use of the term, a factory, and ought not, therefore, to be included with the statistics of factoty manufacture. The present census and that of 1890 have made such an elimination possible hereafter by a distinct statement of the statistics of custom carding mills.

[2] No establishments reported.

SUMMARY, BY STATES AND TERRITORIES ARRANGED GEOGRAPHICALLY, 1840 TO 1900—Continued.

MACHINERY.				Miscellaneous expenses.	Cost of materials used.	PRINCIPAL MATERIALS—QUANTITIES CONSUMED.						Value of products.	
						Wool in condition purchased.			Raw cotton, and cotton warp, and yarn not made in mill (pounds).	Animal hair and fur and noils, not made in mill (pounds).	Shoddy, not made in mill (pounds).		
Cards.	Combing machines.	Looms.	Spindles.			Total (pounds).	Foreign (pounds).	Domestic (pounds).					
26		112	9,552	$16,831	$175,426	773,053		773,053	4,603		2,756	$296,500	239
36		158	10,828	40,050	505,503	1,880,532	300	1,880,232	10,610		46,000	695,218	240
56		166	11,025		435,747	1,407,510		1,407,510	18,597		865	679,904	241
199		374	31,462		998,073	2,273,128		2,273,128	23,148		1,225	1,647,606	242
13		20	1,000		67,293	168,700						127,640	243
					3,500	11,500						13,000	244
												800	245
36		196	7,762	21,067	206,579	464,946		464,946	279,233		80,779	348,974	246
52		261	12,984	29,775	311,881	1,052,229	4,000	1,048,229	155,395		7,000	548,457	247
126		193	12,622		681,711	1,811,635		1,811,635	115,227		4,000	930,961	248
258		183	10,371		849,313	1,979,671		1,979,671	25,500			1,256,213	249
15		29	896		56,745	191,400						143,025	250
					16,000	80,000						56,000	251
												13,750	252
													253
													254
9		41	2,636		107,251	364,000		364,000	23,200		2,000	211,525	255
24		29	1,616		86,105	200,000		200,000	1,300			153,150	256
													257
													258
													259
17		94	6,974	17,354	121,828	744,469		744,469	64,212		1,761	222,343	260
31		99	7,960	27,155	163,864	800,500		800,500	38,632			338,534	261
21		114	5,422		147,226	566,900		566,900	31,697		1,000	279,424	262
19		31	1,430		98,272	276,000		276,000	8,320			199,600	263
													264
													265
													266
6		36	2,724	18,414	101,818	591,460		591,466	8,700		3,000	242,112	267
5		33	1,528	4,765	45,419	217,100		217,100	250			101,931	268
													269
1		5	240		12,775	50,000		50,000			4,000	21,000	270
													271
													272
													273
65		317	23,119	152,584	875,300	4,043,265		4,043,265	174,819		113,798	1,585,178	274
91		387	24,650	255,230	1,116,418	5,065,619	145,000	4,920,619	213,864		58,111	1,939,965	275
83		298	23,388		1,277,025	4,720,100	20,000	4,700,100	234,026	25,000	95,150	2,253,888	276
67		275	8,200		835,736	2,871,400		2,871,400	100,000		1,800	1,608,611	277
10		45	780		77,000	550,000						235,000	278
													279
													280
35		175	12,187	74,323	465,855	1,997,954		1,997,954	107,384		73,084	897,824	281
21		95	6,052	86,906	327,502	1,366,148		1,366,148	106,546		5,000	614,932	282
21		56	4,248		227,486	985,250		985,250	6,000		1,000	549,030	283
21		90	4,320		227,595	943,400		943,400				505,857	284
1		15	280		27,000	150,000						85,000	285
													286
													287
30		142	10,932	78,261	409,445	2,045,311		2,045,311	67,435		40,714	687,354	288
70		292	18,598	168,324	788,916	3,699,471	145,000	3,554,471	107,318		53,111	1,325,033	289
60		230	18,740		997,539	3,574,850	20,000	3,554,850	228,026	25,000	94,150	1,634,858	290
46		185	3,880		608,141	1,928,000		1,928,000	100,000		1,800	1,102,754	291
6		30	500		50,000	400,000						150,000	292
													293
													294

[3] Included in "all other Western states."
[4] Includes establishments distributed as follows: 1900—Colorado, 1; Idaho, 1; Kansas, 1; North Dakota, 1; Wyoming, 1. 1890—Idaho, 1; Kansas, 1; South Dakota, 2. 1870—New Mexico, 1.
[5] Includes the report from an establishment in Washington.

TABLE 30.—WOOL MANUFACTURES (EXCLUDING HOSIERY AND KNIT GOODS): SUMMARY BY CLASSES, 1900.

	ESTABLISHMENTS: COMMENCEMENT, NUMBER, AND CHARACTER OF ORGANIZATION.					CAPITAL.				
	Total number.	Individual.	Firm and limited partnership.	Incorporated company.	Miscellaneous.	Total.	Land.	Buildings.	Machinery, tools, and implements.	Cash and sundries.
Total	1,414	528	429	456	1	$310,179,749	$17,936,483	$38,074,295	$69,215,841	$184,953,130
Worsted goods	186	43	60	83	.....	132,168,110	6,731,982	13,279,427	27,026,759	85,129,942
Woolen goods	1,035	426	298	311	.....	124,386,262	7,948,126	17,760,364	28,703,473	69,974,299
Carpets and rugs	133	48	49	35	1	44,449,299	2,641,774	5,717,961	11,495,056	24,594,508
Felt goods	36	7	7	22	.....	7,125,276	506,601	1,115,961	1,745,933	3,756,781
Wool hats	24	4	15	5	.....	2,050,802	108,000	200,582	244,620	1,497,200

		SALARIED EMPLOYEES.								
	Proprietors and firm members.	Total.		Officers of corporations.		General superintendents, managers, clerks, and salesmen.				
						Total.		Men.		Women.
		Number.	Salaries.	Number.	Salaries.	Number.	Salaries.	Number.	Salaries.	Number.	Salaries.
Total	1,110	4,495	$6,455,495	606	$1,569,246	3,889	$4,886,249	3,539	$4,715,986	350	$170,263
Worsted goods	127	1,369	2,342,218	117	440,492	1,252	1,901,726	1,130	1,837,907	122	63,819
Woolen goods	822	2,246	2,934,048	402	847,208	1,844	2,086,840	1,664	2,001,528	180	85,312
Carpets and rugs	111	687	881,398	52	173,931	635	707,467	607	693,532	28	13,935
Felt goods	13	136	231,065	28	92,110	108	138,955	94	133,278	14	5,677
Wool hats	37	57	66,766	7	15,505	50	51,261	44	49,741	6	1,520

	WAGE-EARNERS, INCLUDING PIECEWORKERS.									
	Total.				Men, 16 years and over.		Women, 16 years and over.		Children, under 16 years.	
	Greatest number employed at any one time during the year.	Least number employed at any one time during the year.	Average number.	Wages.	Average number.	Wages.	Average number.	Wages.	Average number.	Wages.
Total	181,719	139,915	159,108	$57,933,817	83,371	$36,412,872	64,141	$19,549,423	11,596	$1,971,522
Worsted goods	81,511	60,489	68,893	24,757,006	40,601	16,913,731	24,535	7,218,087	3,757	625,188
Woolen goods	64,036	49,848	57,008	20,092,738	25,595	11,300,071	25,829	7,831,109	5,584	961,558
Carpets and rugs	30,175	25,734	28,411	11,121,383	13,860	6,651,180	12,468	4,113,142	2,083	357,061
Felt goods	3,085	2,335	2,688	1,024,835	1,957	820,637	658	191,090	73	13,108
Wool hats	2,912	1,509	2,108	937,855	1,358	727,253	651	195,995	99	14,607

	PERSONS EMPLOYED: WAGE-EARNERS, INCLUDING PIECEWORKERS.											
	Average number employed during each month.											
	Men, 16 years and over.											
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
Total	81,027	81,110	82,900	83,064	82,763	81,702	81,269	82,757	84,623	86,224	86,610	86,383
Worsted goods	24,947	24,292	24,876	25,299	25,389	25,047	25,161	25,616	26,022	26,719	26,728	27,044
Woolen goods	39,214	39,772	40,930	41,092	40,361	39,532	38,839	39,714	40,898	41,900	42,502	42,338
Carpets and rugs	13,828	13,915	13,865	13,428	13,783	13,837	13,923	13,916	14,018	14,048	14,100	13,659
Felt goods	1,929	1,931	1,976	1,912	1,921	1,898	1,901	2,003	2,050	2,011	1,975	1,977
Wool hats	1,109	1,200	1,253	1,333	1,309	1,388	1,445	1,508	1,635	1,546	1,305	1,265

	PERSONS EMPLOYED: WAGE-EARNERS, INCLUDING PIECEWORKERS—continued.											
	Average number employed during each month—Continued.											
	Women, 16 years and over.											
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
Total	61,521	62,201	63,314	63,351	63,741	63,267	62,951	63,699	64,891	66,514	67,337	66,905
Worsted goods	24,100	24,578	24,947	25,322	25,691	25,675	25,493	25,839	26,072	26,882	27,596	27,753
Woolen goods	24,001	23,964	24,676	24,750	24,491	23,934	23,503	23,792	24,658	25,454	25,720	25,477
Carpets and rugs	12,285	12,521	12,498	12,082	12,331	12,368	12,497	12,561	12,604	12,641	12,792	12,436
Felt goods	659	640	665	634	654	663	672	646	662	669	662	670
Wool hats	476	498	528	563	574	627	786	861	895	868	567	569

TABLE 30.—WOOL MANUFACTURES (EXCLUDING HOSIERY AND KNIT GOODS): SUMMARY BY CLASSES, 1900—Cont'd.

PERSONS EMPLOYED: WAGE-EARNERS, INCLUDING PIECEWORKERS—Continued.

Average number employed during each month—Continued.

Children, under 16 years.

	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
Total	11,031	11,364	11,435	11,437	11,533	11,457	11,579	11,619	11,837	11,814	11,999	12,047
Worsted goods	5,323	5,477	5,429	5,483	5,567	5,503	5,553	5,577	5,700	5,721	5,829	5,846
Woolen goods	3,564	3,644	3,757	3,738	3,709	3,699	3,731	3,732	3,818	3,810	3,922	3,930
Carpets and rugs	1,991	2,093	2,091	2,048	2,088	2,083	2,115	2,113	2,121	2,063	2,079	2,111
Felt goods	69	68	69	74	70	76	73	70	74	73	82	78
Wool hats	84	82	89	94	99	96	107	127	124	117	87	82

	SKILLED OPERATIVES (AVERAGE NUMBER).									MACHINERY.			
	Spinners.			Weavers.			Knitters.	Finishers.				Combing machines.	
	Men, 16 years and over, number.	Women, 16 years and over, number.	Children, under 16 years, number.	Men, 16 years and over, number.	Women, 16 years and over, number.	Children, under 16 years, number.	Men, 16 years and over, number.	Men, 16 years and over, number.	Women, 16 years and over, number.	Children, under 16 years, number.	Sets of woolen cards.	Total number.	Of American manufacture.	Of foreign manufacture.
Total	8,168	7,139	2,559	24,258	22,567	199	7	8,296	6,938	341	6,605	1,451	337	1,114
Worsted goods	1,995	4,852	1,580	7,426	6,194	62	.....	2,789	2,932	78	685	1,194	214	980
Woolen goods	5,619	1,137	790	10,881	11,812	103	7	4,625	2,793	180	5,010	123	77	46
Carpets and rugs	486	1,150	185	5,836	4,443	34	.....	516	1,018	80	468	134	46	88
Felt goods	68	.....	4	115	118	.....	.....	149	95	3	302	.....	.....	.....
Wool hats	.....	.....	.....	.....	.....	.....	.....	217	100	.....	140	.....	.....	.....

MACHINERY—continued.

	Spindles.							Looms on woolen or worsted goods.					
	Total number.	Spinning.			Doubling.			Total number.	Broad (50 inches or over—reed space).		Narrow (50 inches or over—reed space).		Hand.
		Woolen.	Worsted.	Cotton.	Woolen.	Worsted.	Cotton.		On woolen goods.	On worsted goods.	On woolen goods.	On worsted goods.	On woolen or worsted goods.
Total	3,511,099	1,935,527	980,835	147,524	95,501	344,420	7,292	63,294	22,364	16,710	14,220	9,920	80
Worsted goods	1,371,026	133,504	842,730	91,152	16,522	282,914	4,204	26,372	2,240	14,699	950	8,481	2
Woolen goods	1,906,581	1,714,952	40,914	50,276	74,731	24,848	860	34,881	19,056	1,994	12,656	1,143	32
Carpets and rugs	209,206	63,836	97,191	6,096	3,197	36,658	2,228	1,757	797	17	602	295	46
Felt goods	24,286	23,235	.....	.....	1,051	.....	.....	284	271	.....	12	1	.....
Wool hats	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

MACHINERY—continued.

Looms on carpets and rugs.

	Total number.	Ingrain.		Broad ingrain.		Venetian.	Tapestry Brussels.	Tapestry velvet.	Body Brussels.	Wilton.	Axminster.	Moquette.	Wilton rug.	Tapestry rug.	Smyrna rug.	
		Hand.	Power.	Hand.	Power.	Power.	Power.	Power.	Power.	Power.	Power.	Power.	Power.	Power.	Hand.	Power.
Total	10,896	99	4,386	1	246	80	1,094	737	647	507	611	150	22	3	955	1,358
Woolen goods	142	7	32	.....	.....	.....	.....	.....	103	.....	.....	.....	.....	.....	.....	.....
Carpets and rugs	10,754	92	4,354	1	246	80	1,094	737	544	507	611	150	22	3	955	1,358

TABLE 30.—WOOL MANUFACTURES (EXCLUDING HOSIERY AND KNIT GOODS): SUMMARY BY CLASSES, 1900—Cont'd.

MACHINERY—continued.

	Formers for fur hats.	Braiders.	Knitting machines.								
			Total number.	Spring beard needle.		Latch needle.					
				Circular, ribbed.	Circular, plain.	Flat, plain.	Full fashioned, flat ribbed.	Circular, ribbed.	Circular, plain.	Circular, hosiery, automatic.	Hand and other variety, plain.
Total	504	14,958	157	4	110	7	5	11	16	2	2
Worsted goods		2,830									
Woolen goods	500	12,128	157	4	110	7	5	11	16	2	2
Carpets and rugs											
Felt goods											
Wool hats	4										

	MISCELLANEOUS EXPENSES.					MATERIALS USED.			
							Purchased in raw state.		
							Wool.		
	Total.	Rent of works.	Taxes, not including internal revenue.	Rent of offices, interest, insurance, etc.	Contract work.	Aggregate cost.	Total cost.	Foreign in condition purchased.	
								Pounds.	Cost.
Total	$17,329,932	$845,778	$1,161,596	$13,573,336	$1,749,222	$181,159,127	$97,171,554	136,434,961	$28,835,967
Worsted goods	6,767,611	286,920	380,210	5,121,974	978,507	77,075,222	46,274,155	57,263,393	15,159,048
Woolen goods	7,268,634	365,171	566,452	5,880,517	456,494	71,011,956	38,838,138	22,521,954	4,598,624
Carpets and rugs	2,751,879	162,657	178,469	2,096,532	314,221	27,228,719	8,783,166	51,761,523	8,077,420
Felt goods	356,164	16,140	28,391	311,633		3,801,028	2,399,926	4,248,880	782,224
Wool hats	185,644	14,890	8,074	162,680		2,042,202	876,169	639,211	218,651

MATERIALS USED—continued.

Purchased in raw state—Continued.

	Wool—Continued.			Animal hair and fur.						Cotton.		
	Domestic in condition purchased.		Foreign and domestic, etc., scoured.	Camel, alpaca, and vicuna hair.		Mohair		Buffalo, cow, and other animal hair and fur.				
	Pounds.	Cost.	Pounds.	Pounds.	Cost.	Pounds.	Cost.	Pounds.	Cost.	Bales.	Pounds.	Cost.
Total	257,934,562	$61,057,383	238,632,452	2,536,296	$530,225	3,048,146	$1,439,288	29,085,363	$1,821,559	99,054	43,414,502	$3,487,132
Worsted goods	122,714,543	29,147,093	103,338,616	1,742,573	391,332	1,905,967	972,207	855,898	79,960	12,079	5,276,751	524,515
Woolen goods	127,678,662	29,899,065	89,366,903	238,247	34,337	1,117,179	459,831	19,679,181	1,090,796	80,725	34,967,959	2,755,485
Carpets and rugs	109,811	26,687	37,560,231	457,476	71,256	25,000	7,250	5,707,281	471,104	3,813	1,943,942	129,449
Felt goods	5,357,383	1,414,216	6,468,097	98,000	33,300			2,721,521	92,503	2,437	1,225,850	77,683
Wool hats	2,074,163	570,322	1,898,605					121,482	87,196			

MATERIALS USED—continued.

Purchased in partially manufactured form.

	Total cost.	Materials not made in mill.									
		Shoddy.		Wool waste and noils.		Camel, alpaca, and vicuña noils.		Mohair noils.		Tops.	
		Pounds.	Cost.	Pounds.	Cost.	Pounds.	Cost.	Pounds.	Cost.	Pounds.	Cost.
Total	$62,219,766	34,496,508	$4,195,744	21,114,539	$5,034,204	326,496	$60,933	114,762	$25,749	5,865,566	$3,022,974
Worsted goods	23,250,097	1,807,827	303,644	1,885,867	558,494	55,679	12,856			5,260,775	2,701,582
Woolen goods	21,250,276	31,228,940	3,767,192	13,473,154	3,249,982	185,909	44,450	113,562	25,587	305,333	163,964
Carpets and rugs	15,945,010	744,233	43,555	2,238,946	301,944	84,908	3,627	1,200	162	200,000	96,000
Felt goods	892,973	712,373	80,737	2,653,590	552,992					99,158	61,428
Wool hats	881,410	3,135	616	862,982	370,792						

TABLE 30.—WOOL MANUFACTURES (EXCLUDING HOSIERY AND KNIT GOODS): SUMMARY BY CLASSES, 1900—Cont'd.

	MATERIALS USED—continued.									
	Purchased in partially manufactured form—Continued.									
	Yarns not made in mill.									
	Woolen.		Worsted.		Merino.		Cotton.		Silk.	
	Pounds.	Cost.	Pounds.	Cost.	Pounds.	Cost.	Pounds.	Cost.	Pounds.	Cost.
Total	38,903,178	$7,705,797	34,377,736	$23,068,988	3,904,515	$709,894	55,217,994	$9,568,864	70,073	$334,001
Worsted goods	2,847,091	1,402,189	18,896,863	14,704,172	419,434	147,891	13,420,590	3,032,039	26,418	144,971
Woolen goods	3,059,771	1,272,954	6,214,076	4,791,079	3,215,245	516,636	21,922,136	3,782,240	34,007	145,514
Carpets and rugs	32,996,316	5,030,654	9,218,267	3,544,860	237,970	38,994	19,823,561	2,744,928	9,634	43,455
Felt goods			48,530	28,877	31,866	6,373	51,707	9,657	14	61

	MATERIALS USED—continued.												
	Purchased in partially manufactured form—Continued.												
	Yarns not made in mill—Continued.						Shoddy made in the mill for use therein.		Wool-hat bodies and hats in the rough.		Fur-hat bodies and hats in the rough.		All other materials which are components of the products.
	Spun silk.		Linen.		Jute, ramie, or other vegetable fiber.								
	Pounds.	Cost.	Pounds.	Cost.	Pounds.	Cost.	Pounds.	Cost.	Dozs.	Cost.	Lbs.	Cost.	Cost.
Total	250,270	$489,537	8,415,275	$1,178,414	39,965,180	$2,633,413	37,000,000	$2,873,886	4,939	$13,920	8,500	$21,982	$1,381,466
Worsted goods	47,533	166,672	1,314	1,052									74,535
Woolen goods	23,957	72,632	7,845	6,998	1,118,767	57,384	35,626,165	2,817,663					536,001
Carpets and rugs	178,780	250,233	8,388,211	1,164,826	38,846,413	2,476,029	125,000	6,125					199,618
Felt goods			17,905	5,538			1,248,835	50,098					97,212
Wool hats									4,939	13,920	8,500	21,982	474,100

	MATERIALS USED—continued.											
	Soap.		Oil for preparing wool for cards or combs.		Chemicals and dye-stuffs.	Fuel.	Rent of power and heat.	Mill supplies.	All other materials.	Freight.	Cotton yarn made in mill for use therein.
	Pounds.	Cost.	Gallons.	Cost.	Cost.	Cost.	Cost.	Cost.	Cost.	Cost.	Pounds.
Total	36,136,593	$1,379,886	3,501,582	$1,039,679	$7,983,684	$3,652,162	$206,326	$1,406,856	$4,323,321	$1,775,893	7,733,291
Worsted goods	13,486,089	485,397	488,703	221,981	2,627,140	1,226,938	79,338	564,150	1,818,608	527,418	3,237,131
Woolen goods	18,758,003	742,528	2,467,865	693,228	3,968,020	1,795,286	102,131	655,338	1,983,130	983,881	2,783,739
Carpets and rugs	2,696,173	90,271	465,731	103,671	1,151,726	469,913	22,881	138,181	366,761	157,139	1,712,421
Felt goods	968,495	51,760	77,553	20,232	128,296	110,355	1,976	39,446	91,629	64,435	
Wool hats	227,833	9,930	1,730	567	108,502	49,670		9,741	63,193	43,020	

	PRODUCTS.								
	All-wool woven goods, whether woolen or worsted.								
	Value.	Wool cloths, etc.		Worsted coatings, etc.		Woolen overcoatings, etc.		Worsted overcoatings, etc.	
		Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.
Total	$296,990,484	34,551,266	$22,860,783	54,033,679	$43,003,550	18,732,922	$16,135,436	877,133	$567,390
Worsted goods	120,314,344	3,582,788	2,508,918	50,204,572	39,552,773	1,718,008	1,705,645	16,690	7,778
Woolen goods	118,430,158	30,715,638	20,136,951	3,829,107	3,450,777	17,011,186	14,426,064	860,443	559,612
Carpets and rugs	48,192,351								
Felt goods	6,461,691	252,840	214,914			3,728	3,727		
Wool hats	3,591,940								

TABLE 30.—WOOL MANUFACTURES (EXCLUDING HOSIERY AND KNIT GOODS): SUMMARY BY CLASSES, 1900—Cont'd.

	PRODUCTS—continued.									
	All-wool woven goods, whether woolen or worsted—Continued.									
	Wool dress goods, etc., and opera and similar flannels.		Worsted dress goods, cashmeres, buntings, etc.		Carriage cloths of all weights.		Flannels for underwear.		Blankets.	
	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.
Total	33,597,692	$12,978,546	57,712,086	$16,316,392	1,220,408	$696,999	9,345,556	$2,352,086	5,465,277	$2,325,307
Worsted goods	3,320,974	1,598,459	54,480,569	14,994,513					187,530	42,194
Woolen goods	30,273,238	11,378,030	3,231,517	1,321,879	1,220,408	696,999	9,324,720	2,344,559	5,266,643	2,274,774
Felt goods	3,480	2,057					20,836	7,527	11,104	8,339

	PRODUCTS—continued.											
	All-wool woven goods, whether woolens or worsted—Cont'd.					Union or cotton mixed, woven goods.						
	Horse blankets.		Carriage robes.		Woven shawls.	Unions, tweeds, etc.		Overcoatings, etc.		Sackings, tricots, etc., and opera and similar flannels.		
	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.
Total	518,452	$259,221	28,979	$17,877	600,104	$500,523	30,767,915	$13,695,830	6,087,366	$3,518,613	11,176,752	$3,669,584
Worsted goods					87,902	72,248	1,179,014	880,441	411,902	353,864	1,071,204	328,243
Woolen goods	514,952	256,211	615	510	512,202	428,275	29,588,901	12,815,389	5,675,464	3,164,749	10,105,548	3,341,341
Carpets and rugs			28,364	17,367								
Felt goods	3,500	3,010										

	PRODUCTS—continued.									
	Union or cotton-mixed woven goods—Continued.								Goods woven on cotton warps, with weft partly or wholly of wool, worsted, or of hair (or cotton weft with warp of wool).	
	Flannels for underwear.		Blankets.		Horse blankets.		Carriage robes.		Wool filling, cassimeres, etc.	
	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.
Total	6,217,094	$1,284,578	1,530,696	$561,649	1,094,537	$228,943	460,210	$152,499	37,160,449	$11,024,538
Worsted goods									2,073,990	1,356,735
Woolen goods	6,217,094	1,284,578	1,530,696	561,649	1,094,537	228,943	460,210	152,499	35,086,459	9,667,803

	PRODUCTS—continued.									
	Goods woven on cotton warps, with weft partly or wholly of wool, worsted, hair (or cotton weft with warp of wool)—Continued.									
	Worsted filling cassimeres, etc.		Wool filling overcoatings and cloakings.		Astrakhans, etc.		Satinets and linseys.		Worsted filling dress goods, etc.	
	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.
Total	12,663,719	$7,267,508	3,917,498	$1,430,430	32,576	$14,150	13,051,729	$2,873,181	45,784,011	$10,423,206
Worsted goods	10,540,927	6,401,491							39,611,517	8,466,106
Woolen goods	2,122,792	866,017	3,917,498	1,430,430	32,576	14,150	13,051,729	2,873,181	6,172,494	1,957,100

TABLE 30.—WOOL MANUFACTURES (EXCLUDING HOSIERY AND KNIT GOODS): SUMMARY BY CLASSES, 1900—Cont'd.

	PRODUCTS—continued.									
	Goods woven on cotton warps, with weft partly or wholly of wool, worsted, or hair (or cotton weft with warp of wool)—Continued.									
	Wool filling, dress goods, and repellants.		Domett flannels and shirtings.		Linings, Italian cloths, etc.		Cotton-warp blankets.		Horse blankets.	
	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.
Total	7,496,898	$1,890,488	4,555,013	$976,465	10,157,039	$2,228,434	11,159,532	$2,314,003	5,702,315	$1,252,824
Worsted goods	347,882	155,012			6,987,330	1,953,139				
Woolen goods	7,149,016	1,735,446	4,555,013	976,465	3,169,709	275,295	11,107,104	2,241,342	5,702,315	1,252,824
Felt goods							52,428	72,661		

	PRODUCTS—continued.									
	Goods woven on cotton warps, with weft partly or wholly of wool, worsted, or of hair (or cotton weft with warp of wool)—continued.		Upholstery goods and sundries.			Carpets and rugs.				
						Carpets.				
	Carriage robes.		Woolen and worsted upholstery goods.		Other upholstery goods.	Ingrain, 2-ply.		Ingrain, 3-ply.		Ingrain.	
	Square yards.	Value.	Square yards.	Value.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.
Total	1,250,900	$816,733	541,909	$786,461	$2,922,850	36,800,494	$13,250,801	3,223,100	$1,146,653	2,328,906	$1,007,627
Worsted goods			43,614	62,130	454,995						
Woolen goods	1,250,233	815,233	403,954	679,991	2,062,611	102,202	28,144	543	380		
Carpets and rugs	667	1,500	94,341	44,340	405,244	36,698,292	13,222,657	3,222,557	1,146,273	2,328,906	1,007,627

	PRODUCTS—continued.											
	Carpets and rugs—Continued.											
	Carpets—Continued.											
	Tapestry Brussels.		Body Brussels.		Tapestry velvet.		Wilton and Wilton velvet.		Axminster.		Moquette.	
	Running yards of 27 inches wide.	Value.	Running yards of 27 inches wide.	Value.	Running yards of 27 inches wide.	Value.	Running yards of 27 inches wide.	Value.	Running yards of 27 inches wide.	Value.	Running yards of 27 inches wide.	Value.
Total	11,649,932	$5,520,665	3,581,991	$2,979,867	5,706,754	$3,743,353	4,782,835	$4,030,842	5,074,961	$3,637,001	1,627,410	$1,125,268
Carpets and rugs	11,649,932	5,520,665	3,581,991	2,979,867	5,706,754	3,743,353	4,782,835	4,030,842	5,074,961	3,637,001	1,627,410	1,125,268

	PRODUCTS—continued.											
	Carpets and rugs—Continued.											
	Rugs.											
	Tapestry.		Wilton.		Moquette and Axminster.		Ingrain.		Smyrna carpets and rugs.		Other rugs.	
	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.
Total	18,750	$9,000	339,784	$545,967	327,598	$342,262	393,417	$168,324	3,651,661	$3,680,618	5,115,505	$2,394,524
Carpets and rugs	18,750	9,000	339,784	545,967	327,598	342,262	393,417	168,324	3,651,661	3,680,618	5,111,173	2,391,434
Felt goods											4,332	3,090

TABLE 30.—WOOL MANUFACTURES (EXCLUDING HOSIERY AND KNIT GOODS): SUMMARY BY CLASSES, 1900—Cont'd.

	PRODUCTS—continued.										
	Felt goods.										
	Felt cloths.		Endless belts.		Boot and shoe linings.		Hair felting.		Trimming and lining felts, felt skirts, etc.		All other felts.
	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Square yards.	Value.	Value.
Total	2,169,064	$599,961	1,114,357	$1,084,835	1,052,538	$540,110	125,000	$56,950	2,472,568	$797,093	$2,285,340
Woolen goods	113,059	51,418							2,738	375	8,029
Carpets and rugs											15,393
Felt goods	2,056,002	548,543	1,114,357	1,084,835	1,052,538	540,110	125,000	56,950	2,469,830	796,718	2,261,918

	PRODUCTS—continued.											
	Hats.				Partly manufactured products for sale.							
	Wool hats.		Fur hats.		Woolen yarn all wool.		Worsted yarn and tops.		Woolen or worsted yarn, union or merino, cotton mixed.		Mohair and similar yarn.	
	Dozens.	Value.	Dozens.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Total	823,425	$3,166,761	43,994	$285,705	33,812,065	$7,075,883	45,780,272	$31,171,461	15,984,567	$4,673,012	1,004,113	$924,344
Worsted goods					3,556,375	1,052,508	41,659,360	29,358,056	2,537,303	1,903,639	788,166	705,211
Woolen goods	12,000	5,400			29,143,476	5,752,118	1,343,983	723,369	13,437,264	2,764,486	215,947	219,133
Carpets and rugs					1,073,214	252,857	2,776,929	1,090,036	10,000	4,887		
Felt goods					39,000	18,400						
Wool hats	811,425	3,161,361	43,994	285,705								

	PRODUCTS—continued.											
	Partly manufactured products for sale—Continued.											
	Cotton yarn.		Wool card rolls.		Noils.		Waste.		Shoddy.		Flocks.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
Total	3,531,992	$527,046	977,706	$395,808	12,851,031	$3,474,318	8,511,905	$1,258,170	430,176	$70,064	512,422	$33,017
Worsted goods	76,013	19,760			12,052,814	3,335,251	7,184,821	1,162,610			297,628	11,783
Woolen goods	3,455,979	507,286	977,706	395,808	124,029	18,936	978,473	67,059	430,176	70,064	212,625	21,037
Carpets and rugs					674,188	120,131	330,351	21,133				
Felt goods							18,260	7,368			2,169	197

	PRODUCTS—continued.									
	Partly manufactured products for sale—Continued.		Hosiery and knit goods.							
			Hose and half hose.							
			Woolen.				Merino or mixed.		Cotton.	
			Half hose.		Hose.		Half hose.		Hose.	
	No. 14. Wool-hat bodies and hats in the rough.									
	Dozens.	Value.	Dozens.	Value.	Dozens.	Value.	Dozens.	Value.	Dozens.	Value.
Total	56,006	$120,262	3,438	$11,714	828	$3,122	852	$1,806	80	$180
Woolen goods			3,438	11,714	828	3,122	852	1,806	80	180
Wool hats	56,006	120,262								

TABLE 30.—WOOL MANUFACTURES (EXCLUDING HOSIERY AND KNIT GOODS): SUMMARY BY CLASSES, 1900—Cont'd.

	PRODUCTS—continued.											
	Hosiery and knit goods—Continued.				Leggings and gaiters.		Gloves and mittens.		Eiderdown.		All other products.	Contract work.
	Boot and shoe linings.		Jersey cloth and stockinette.									
	Square yards.	Value.	Square yards.	Value.	Dozens.	Value.	Dozens.	Value.	Square yards.	Value.	Value.	Value.
Total	11,420	$8,800	2,784	$1,010	207	$1,656	1,238	$4,641	361,000	$126,403	$5,748,109	$1,613,054
Worsted goods											1,077,474	793,338
Woolen goods	11,420	8,800	2,784	1,010	207	1,656	1,238	4,641	361,000	126,403	1,190,662	775,445
Carpets and rugs											2,648,205	20,100
Felt goods											831,327	
Wool hats											441	24,171

	COMPARISON OF PRODUCTS.			POWER.										
						Owned.								
						Engines.				Water wheels.		Electric motors.		Other power.
						Steam.		Gas or gasoline.						
	Number of establishments reporting for both years.	Census year 1900.	Preceding business year.	Number of establishments reporting.	Total horsepower.	Number.	Horsepower.	Number.	Horsepower.	Number.	Horsepower.	Number.	Horsepower.	Number.	Horsepower.
Total	1,163	$277,335,465	227,326,132	1,393	274,262	1,525	186,252	17	446	1,161	79,056	89	2,697	3	9
Woolen goods	861	109,712,214	95,443,073	1,024	139,645	893	82,933	12	191	954	52,358	51	1,217	2	4
Worsted goods	145	113,635,037	85,483,346	185	97,383	399	73,180	4	220	147	20,491	26	1,151	1	5
Carpets and rugs	114	46,885,929	40,191,460	127	26,932	155	23,091	1	35	22	3,145	5	192		
Felt goods	25	3,867,905	3,416,320	36	7,973	52	5,129			29	2,657	6	132		
Wool hats	18	3,234,380	2,791,933	21	2,329	26	1,919			9	405	1	5		

	POWER—continued.			FACTORIES.									
	Rented.		Furnished to other establishments.										
	Electric.	Other kind.		Total number of establishments.	No employees.	Under 5.	5 to 20.	21 to 50.	51 to 100.	101 to 250.	251 to 500.	501 to 1,000.	Over 1,000.
	Horsepower.	Horsepower.	Horsepower.										
Total	4,798	1,004	1,044	1,414	115	193	193	206	243	282	115	45	22
Woolen goods	2,942		286	1,035	114	186	158	146	155	194	61	19	2
Worsted goods	1,801	535	260	186		1	10	17	42	53	28	23	12
Carpets and rugs		469	484	133		2	18	33	30	20	19	3	8
Felt goods	55		14	36		1	6	4	13	10	2		
Wool hats				24	1	3	1	6	3	5	5		

TABLE 31.—WOOLEN GOODS:

		United States.	Alabama.	Arkansas.	California.	Connecticut.
1	Number of establishments	1,035	11	13	5	51
	Character of organization:					
2	Individual	426	6	7	1	8
3	Firm and limited partnership	298	3	6	.....	15
4	Incorporated company	311	2	.....	4	28
	Capital:					
5	Total	$124,386,262	$97,759	$43,525	$1,050,474	$9,140,066
6	Land	$7,948,126	$2,175	$2,855	$90,900	$395,966
7	Buildings	$17,760,364	$14,795	$6,000	$117,935	$1,458,743
8	Machinery, tools, and implements	$28,703,473	$31,723	$17,800	$270,348	$2,012,192
9	Cash and sundries	$69,974,299	$49,066	$16,870	$571,291	$5,273,165
10	Proprietors and firm members	822	13	18	1	46
	Salaried officials, clerks, etc.:					
11	Total number	2,246	2	3	18	144
12	Total salaries	$2,934,048	$1,820	$903	$25,460	$191,357
	Officers of corporations—					
13	Number	402	.....	.....	6	44
14	Salaries	$847,208	.....	.....	$10,100	$69,300
	General superintendents, managers, clerks, etc.—					
15	Total number	1,844	2	3	12	100
16	Total salaries	$2,086,840	$1,820	$903	$15,360	$122,057
	Men—					
17	Number	1,664	2	3	12	94
18	Salaries	$2,001,528	$1,820	$903	$15,360	$119,734
	Women—					
19	Number	180	.....	.....	.....	6
20	Salaries	$85,312	.....	.....	.....	$2,323
	Wage-earners, including pieceworkers, and total wages:					
21	Greatest number employed at any one time during the year	81,511	116	41	522	5,628
22	Least number employed at any one time during the year	60,489	38	33	387	4,082
23	Average number	68,893	75	27	430	4,668
24	Wages	$24,757,006	$10,458	$5,158	$159,825	$1,760,917
	Men, 16 years and over—					
25	Average number	40,601	21	14	264	3,071
26	Wages	$16,913,731	$3,863	$3,264	$113,826	$1,285,590
	Women, 16 years and over—					
27	Average number	24,535	51	11	147	1,448
28	Wages	$7,218,087	$6,395	$1,651	$43,012	$445,762
	Children, under 16 years—					
29	Average number	3,757	3	2	19	149
30	Wages	$625,188	$200	$243	$2,987	$29,565
	Average number of wage-earners, including pieceworkers, employed during each month:					
	Men, 16 years and over—					
31	January	39,214	19	9	234	3,006
32	February	39,772	20	6	219	3,025
33	March	40,930	20	8	269	3,181
34	April	41,092	22	8	250	3,128
35	May	40,361	21	14	250	3,082
36	June	39,532	17	14	255	2,833
37	July	38,839	20	17	288	2,783
38	August	39,714	22	18	282	2,968
39	September	40,898	22	22	293	3,127
40	October	41,900	22	23	299	3,212
41	November	42,502	23	20	309	3,248
42	December	42,438	24	9	224	3,258
	Women, 16 years and over—					
43	January	24,001	67	7	119	1,433
44	February	23,964	84	8	105	1,417
45	March	24,676	62	10	138	1,497
46	April	24,750	76	9	146	1,461
47	May	24,491	83	13	151	1,447
48	June	23,934	14	13	147	1,342
49	July	23,503	14	14	154	1,347
50	August	23,792	32	14	167	1,308
51	September	24,658	33	14	173	1,442
52	October	25,454	33	14	175	1,503
53	November	25,720	51	13	172	1,537
54	December	25,477	65	5	117	1,548
	Children, under 16 years—					
55	January	3,564	3	1	17	153
56	February	3,644	3	1	16	147
57	March	3,757	3	1	17	156
58	April	3,738	3	2	15	144
59	May	3,709	3	2	17	147
60	June	3,699	3	5	21	142
61	July	3,731	3	3	20	133
62	August	3,732	3	3	20	142
63	September	3,818	3	4	23	145
64	October	3,840	3	2	22	156
65	November	3,922	3	2	21	160
66	December	3,930	3	1	18	169
	Skilled operatives, average number:					
	Spinners—					
67	Men, 16 years and over	5,619	2	2	45	379
68	Women, 16 years and over	1,137	1	.....	7	15
69	Children, under 16 years	790	.....	.....	.....	5
	Weavers—					
70	Men, 16 years and over	10,881	4	.....	31	883
71	Women, 16 years and over	11,812	25	7	79	574
72	Children, under 16 years	103	.....	.....	11	.....
	Knitters—					
73	Men, 16 years and over	7	.....	.....	.....	.....
	Finishers—					
74	Men, 16 years and over	4,625	4	2	57	344
75	Women, 16 years and over	2,793	6	.....	25	250
76	Children, under 16 years	180	.....	.....	.....	12
	Machinery:					
77	Sets of woolen cards	5,010	8	16	30	343
78	Combing machines, number	123	.....	.....	.....	32
79	Of American manufacture	77	.....	.....	.....	30
80	Of foreign manufacture	46	.....	.....	.....	2
81	Spindles, number	1,906,581	160	1,000	10,932	149,278
	Spinning—					
82	Woolen	1,714,952	160	960	10,476	127,218
83	Worsted	40,914	.....	.....	.....	2,000
84	Cotton	50,276	.....	.....	.....	10,000

BY STATES, 1900.

Georgia.	Illinois.	Indiana.	Iowa.	Kentucky.	Maine.	Maryland.	Massachusetts.	Michigan.	Minnesota.	Mississippi.	Missouri.	
14	13	20	12	36	76	4	131	16	19	4	25	1
8	6	5	5	20	25	1	45	7	11	2	17	2
2	2	6	3	11	12	2	32	7	6	.....	5	3
4	5	9	4	5	39	1	54	2	2	2	3	4
$455,114	$1,571,625	$1,849,263	$494,074	$1,588,816	$12,642,058	$1,330,549	$33,196,903	$775,609	$762,825	$315,700	$490,747	5
$32,065	$100,994	$57,375	$24,990	$32,955	$728,715	$28,630	$2,357,173	$14,200	$178,900	$5,400	$36,135	6
$61,895	$211,679	$288,799	$67,850	$157,195	$1,833,515	$169,177	$4,663,468	$111,938	$133,092	$96,400	$89,450	7
$198,185	$367,731	$525,997	$143,350	$340,422	$2,759,954	$171,663	$5,706,431	$187,285	$183,005	$107,900	$170,475	8
$162,969	$891,221	$977,092	$257,884	$1,058,244	$7,319,874	$961,079	$20,469,831	$462,186	$267,828	$106,000	$194,687	9
1	1	12	11	18	34	6	102	16	6	2	18	10
13	50	58	26	20	190	25	438	23	20	5	18	11
$16,936	$69,023	$68,148	$16,611	$28,972	$241,988	$35,625	$729,724	$18,099	$23,450	$10,166	$20,928	12
3	6	15	5	9	39	3	55	3	2	2	7	13
$7,114	$12,000	$24,430	$4,320	$21,200	$69,115	$14,100	$203,875	$3,500	$11,000	$2,000	$9,900	14
10	44	43	21	11	151	22	383	20	18	3	11	15
$9,822	$57,023	$43,718	$12,291	$7,772	$172,873	$21,525	$525,849	$14,599	$12,450	$8,166	$11,028	16
10	40	37	19	9	140	20	326	19	16	3	9	17
$9,822	$54,788	$39,712	$11,523	$6,692	$167,599	$20,401	$496,264	$14,365	$10,950	$8,166	$10,128	18
.....	4	6	2	2	11	2	57	1	2	.....	2	19
.....	$2,235	$4,006	$768	$1,080	$5,274	$1,124	$29,585	$234	$1,500	.....	$900	20
590	883	1,226	295	704	7,746	943	21,040	441	355	332	336	21
551	637	782	242	642	5,086	811	14,966	311	305	262	219	22
561	693	1,048	256	618	6,280	877	17,717	337	300	302	237	23
$97,159	$210,157	$306,822	$64,596	$144,874	$2,383,323	$221,215	$6,823,051	$108,168	$90,662	$55,192	$63,314	24
284	368	432	126	149	4,230	576	11,177	193	160	146	139	25
$55,013	$139,831	$169,875	$39,576	$50,350	$1,778,171	$173,152	$4,803,450	$71,726	$60,196	$34,869	$42,427	26
189	290	571	128	364	1,941	204	5,865	144	119	111	79	27
$31,720	$66,888	$129,266	$24,647	$79,966	$584,122	$38,011	$1,888,520	$36,442	$27,081	$16,234	$18,298	28
88	35	45	2	105	109	97	675	.....	21	45	19	29
$10,426	$3,438	$7,681	$373	$14,558	$21,030	$10,052	$131,081	.....	$3,385	$4,089	$2,589	30
275	372	396	111	125	4,215	563	11,027	196	127	125	67	31
274	351	410	113	125	4,223	557	11,252	201	126	139	140	32
278	360	425	112	129	4,303	573	11,511	202	135	144	149	33
288	313	423	116	139	4,215	585	11,583	188	152	147	166	34
293	366	441	126	162	4,081	585	10,988	183	180	145	186	35
291	372	430	131	170	4,007	587	11,098	207	174	138	187	36
290	372	403	142	175	3,847	597	10,439	198	182	140	176	37
291	390	438	138	174	4,124	572	10,413	189	169	146	159	38
293	391	465	139	152	4,244	583	11,054	189	172	156	149	39
281	399	456	130	140	4,448	575	11,399	193	170	156	123	40
272	370	457	132	154	4,544	563	11,662	190	168	156	45	41
279	366	438	123	137	4,481	568	11,787	180	163	158	125	42
181	296	519	122	365	1,924	200	5,781	153	98	96	64	43
181	285	525	124	364	1,908	203	5,933	161	96	106	85	44
185	290	557	119	364	1,966	208	6,066	168	101	110	82	45
191	243	557	121	365	1,961	207	6,079	138	119	111	74	46
195	292	579	127	365	1,884	202	5,896	126	135	109	95	47
196	287	549	133	366	1,863	203	5,832	138	133	106	95	48
197	300	551	135	366	1,768	201	5,446	142	139	107	87	49
197	309	582	134	366	1,897	206	5,269	133	125	112	88	50
195	313	635	137	346	1,893	208	5,701	143	124	118	64	51
182	311	604	126	348	2,019	208	6,023	150	121	119	63	52
182	277	605	130	376	2,102	203	6,167	144	123	120	59	53
183	279	586	124	377	2,111	202	6,186	137	118	122	87	54
87	29	42	.....	97	118	81	625	.....	20	39	18	55
89	29	46	.....	97	123	85	668	.....	20	43	18	56
87	29	49	.....	100	131	95	693	.....	20	44	20	57
91	31	37	1	102	139	104	703	.....	23	45	22	58
87	30	46	5	106	100	111	693	.....	23	44	27	59
90	31	44	5	108	105	110	685	.....	23	42	25	60
89	32	49	5	110	86	114	652	.....	23	44	23	61
88	39	44	5	111	93	99	621	.....	23	45	22	62
88	40	55	5	112	83	97	682	.....	20	47	13	63
88	40	46	1	112	98	87	689	.....	20	48	14	64
88	42	44	1	108	95	96	695	.....	20	49	12	65
86	42	42	.....	100	133	89	695	.....	20	50	9	66
77	31	23	14	77	480	96	1,467	27	33	14	17	67
11	30	107	6	.....	76	8	87	17	1	.....	11	68
66	3	21	.....	15	1	67	67	.....	1	.....	.....	69
89	102	74	17	19	1,231	115	3,101	27	13	15	20	70
167	57	343	40	273	699	122	3,014	46	101	59	79	71
10	.....	2	.....	.....	1	6	8	.....	.....	.....	1	72
.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	73
34	33	55	12	23	485	52	1,522	29	18	8	21	74
6	33	17	11	2	381	22	701	15	1	.....	9	75
.....	2	.....	.....	2	4	.....	59	.....	2	.....	.....	76
31	46	85	26	58	422	47	1,251	40	38	26	36	77
3	.....	.....	.....	.....	5	.....	19	.....	.....	.....	.....	78
3	.....	.....	.....	.....	.....	.....	8	.....	.....	.....	.....	79
.....	.....	.....	.....	.....	5	.....	11	.....	.....	.....	.....	80
11,008	16,156	46,864	9,552	21,215	168,915	15,828	472,984	14,707	9,524	8,916	7,762	81
11,008	15,286	39,608	9,028	20,871	145,853	15,798	442,946	13,512	8,978	8,916	7,523	82
.....	.....	.....	.....	.....	6,984	.....	8,352	.....	.....	.....	.....	83
.....	.....	6,500	.....	.....	3,584	.....	1,300	.....	.....	.....	.....	84

TABLE 31.—WOOLEN GOODS:

		United States.	Alabama.	Arkansas.	California.	Connecticut.
	Machinery—Continued.					
	Spindles, number—Continued.					
	Doubling—					
85	Woolen	74,731	.....	40	456	6,060
86	Worsted	24,848	.....	.....	.....	4,000
87	Cotton	860	.....	.....	.....	.....
88	Looms on woolen or worsted goods, number	34,881	12	40	142	2,274
	Broad, 50 inches or over, reed space—					
89	On woolen goods	19,056	.....	13	119	1,527
90	On worsted goods	1,994	.....	2	.....	280
	Narrow, under 50 inches, reed space—					
91	On woolen goods	12,656	12	20	23	461
92	On worsted goods	1,143	.....	5	.....	6
	Hand—					
93	On woolen or worsted goods	32	.....	.....	.....	.....
94	Looms on carpets and rugs, number	142	30	.....	.....	.....
	Ingrain—					
95	Hand	7	.....	.....	.....	.....
96	Power	32	30	.....	.....	.....
	Body Brussels—					
97	Power	103	.....	.....	.....	.....
98	Formers for fur hats	500	.....	.....	.....	.....
99	Braiders	12,128	.....	.....	.....	.....
100	Knitting machines, number	157	.....	.....	.....	86
	Spring-beard needle—					
101	Circular, ribbed	4	.....	.....	.....	.....
102	Circular, plain	110	.....	.....	.....	86
	Latch needle—					
103	Flat, plain	7	.....	.....	.....	.....
104	Full fashioned, flat, ribbed	5	.....	.....	.....	.....
105	Circular, ribbed	11	.....	.....	.....	.....
106	Circular, plain	16	.....	.....	.....	.....
107	Circular, hosiery, automatic	2	.....	.....	.....	.....
108	Lamb and other variety, hand	2	.....	.....	.....	.....
	Miscellaneous expenses:					
109	Total	$7,268,634	$8,091	$398	$78,261	$473,106
110	Rent of works	$365,171	$113	.....	.....	$17,912
111	Taxes, not including internal revenue	$566,452	$231	$308	$4,417	$38,435
112	Rent of offices, insurance, interest, and all sundry expenses not hitherto included.	$5,880,517	$7,647	$90	$73,844	$399,322
113	Contract work	$456,494	$100	.....	.....	$17,437
	Material used:					
114	Total cost	$71,011,956	$43,078	$28,598	$409,445	$4,951,162
	Wool—					
115	Foreign, in condition purchased, pounds	22,521,954	.....	.....	.....	717,771
116	Cost	$4,598,624	.....	.....	.....	$254,033
117	Domestic, in condition purchased, pounds	127,678,662	129,041	129,637	2,045,311	7,309,254
118	Cost	$29,899,065	$24,511	$22,817	$317,075	$2,075,025
119	Foreign and domestic, etc., scoured, pounds	89,366,903	68,465	85,175	824,116	5,527,290
	Animal hair and fur—					
120	Camel, alpaca, and vicuna hair, pounds	238,247	.....	.....	.....	.....
121	Cost	$34,337	.....	.....	.....	.....
122	Mohair, pounds	1,117,179	.....	.....	.....	5,000
123	Cost	$459,831	.....	.....	.....	$2,000
124	Buffalo, cow, and other animal hair and fur, pounds	19,679,181	.....	.....	.....	164,331
125	Cost	$1,090,796	.....	.....	.....	$13,721
126	Cotton, bales	80,725	40	.....	84	3,414
127	Pounds	34,967,959	20,000	.....	43,058	1,694,850
128	Cost	$2,755,485	$2,000	.....	$3,122	$159,049
	Materials not made in mill—					
129	Shoddy, pounds	31,228,940	.....	.....	40,714	4,344,780
130	Cost	$3,767,192	.....	.....	$5,140	$472,421
131	Wool waste and noils, pounds	13,473,154	.....	.....	.....	1,021,804
132	Cost	$3,249,982	.....	.....	.....	$186,135
133	Camel, alpaca, and vicuna noils, pounds	185,909	.....	.....	.....	795
134	Cost	$44,450	.....	.....	.....	$182
135	Mohair noils, pounds	113,562	.....	.....	.....	6,248
136	Cost	$25,587	.....	.....	.....	$1,849
137	Tops, pounds	305,333	.....	.....	.....	17,236
138	Cost	$163,964	.....	.....	.....	$9,211
	Yarns not made in mill—					
139	Woolen, pounds	3,059,771	46,096	.....	.....	40,976
140	Cost	$1,272,954	$4,609	.....	.....	$26,075
141	Worsted, pounds	6,214,076	.....	.....	1,000	615,351
142	Cost	$4,791,079	.....	.....	$1,200	$530,389
143	Merino, pounds	3,215,245	.....	.....	.....	4,000
144	Cost	$516,636	.....	.....	.....	$1,101
145	Cotton, pounds	21,922,136	78,281	14,000	24,377	902,313
146	Cost	$3,782,240	$9,216	$2,480	$5,964	$192,395
147	Silk, pounds	34,007	.....	.....	.....	51
148	Cost	$145,514	.....	.....	.....	$207
149	Spun silk, pounds	23,957	.....	.....	.....	.....
150	Cost	$72,632	.....	.....	.....	.....
151	Linen, pounds	7,845	.....	.....	.....	.....
152	Cost	$6,998	.....	.....	.....	.....
153	Jute, ramie, or other of vegetable fiber, pounds	1,118,767	.....	.....	.....	.....
154	Cost	$57,384	.....	.....	.....	.....
155	Shoddy made in mill for use therein, pounds	35,626,165	.....	.....	79,265	1,862,929
156	Cost	$2,817,663	.....	.....	$4,781	$168,254
157	All other materials which are components of the product	$536,001	.....	.....	.....	$18,205
158	Soap, pounds	18,758,003	125	5,300	440,000	1,076,286
159	Cost	$742,528	$5	$165	$6,658	$47,084
160	Oil for preparing wool for cards or combs, gallons	2,467,865	927	850	10,721	175,527
161	Cost	$693,228	$130	$222	$3,597	$48,417
162	Chemicals and dyestuffs	$3,968,020	$500	$550	$26,600	$297,765
163	Fuel	$1,795,286	$940	$1,404	$18,933	$170,595
164	Rent of power and heat	$102,131	.....	$100	.....	$700
165	Mill supplies	$655,338	$495	$505	$3,550	$55,784
166	All other materials	$1,983,130	$355	$340	$8,866	$142,950
167	Freight	$983,881	$317	$15	$6,959	$77,615
168	Cotton yarn made in mill for use therein, pounds	2,783,739	.....	.....	.....	565,000

BY STATES, 1900—Continued.

Georgia.	Illinois.	Indiana.	Iowa.	Kentucky.	Maine.	Maryland.	Massachusetts.	Michigan.	Minnesota.	Mississippi.	Missouri.	
	870	756	524	344	7,206	30	15,978	1,195	546		239	85
					5,288		4,408					86
												87
503	184	891	112	533	2,447	179	8,939	159	143	130	196	88
	161	274	91	71	2,354	176	5,381	130	129	62	69	89
	2						541					90
503	21	617	21	460	93	3	2,960	29	14	68	127	91
							54					92
				2								93
					104							94
					1							95
												96
					103							97
												98
							1,000					99
									8			100
									4			101
									4			102
												103
												104
												105
												106
												107
												108
$22,430	$73,486	$97,855	$16,831	$48,644	$659,319	$54,181	$1,745,199	$29,717	$36,178	$17,817	$21,067	109
	$1,350	$1,660	$650	$556	$4,794		$114,538	$650	$1,255		$148	110
$3,012	$5,727	$12,093	$2,726	$6,365	$54,166	$5,940	$208,768	$5,632	$3,894	$3,511	$2,271	111
$18,455	$66,409	$84,102	$13,455	$41,723	$599,911	$48,241	$1,331,195	$23,435	$31,029	$14,266	$18,648	112
										$40		113
$963					$448		$90,698					
$280,295	$492,270	$876,659	$175,426	$405,775	$6,842,679	$667,036	$18,273,424	$406,726	$272,483	$102,308	$206,579	114
				43,917	2,410,357		3,204,445	12,981	3,334			115
5,200				$8,051	$624,003		$767,172	$3,894	$1,040			116
$1,040				703,825	15,904,448	1,938,908	35,482,272	1,406,473	1,281,977	244,434	464,946	117
267,478	1,439,452	3,152,301	773,053	$168,682	$3,555,250	$434,634	$7,610,619	$300,803	$221,855	$48,628	$151,762	118
$57,910	$358,116	$629,635	$147,698	477,628	9,908,269	980,023	20,256,198	802,481	659,643	142,094	600,154	119
169,282	777,507	1,697,505	380,049									
					9,781		29,499					120
					$1,482		$8,109					121
					428,845		656,754					122
550		1,194			$180,055		$269,637					123
$60		$327			823,952		879,331					124
1,000					$60,066		$55,349					125
$160					4,586	1,267	10,059	102	3	144	359	126
2,928	87	1,491	9	1,686	2,298,770	637,730	4,746,530	55,650	1,475	70,560	166,221	127
1,433,936	43,217	736,030	4,103	856,115	$247,988	$49,661	$453,782	$5,571	$152	$3,780	$9,150	128
$101,536	$4,497	$46,562	$513	$49,661								
					3,094,185	58,326	8,628,598	119,261	8,475		80,779	129
111,357	128,244	88,235	2,756	144,124	$464,512	$14,621	$994,924	$22,727	$1,141		$12,182	130
$19,143	$21,987	$14,063	$441	$33,874	1,017,527	53,746	2,847,395	39,622	13,892			131
1,618	10,500	157,795	5,000		$309,285	$10,946	$855,126	$17,754	$3,583			132
$436	$2,800	$38,879	$750		30,228		100,773					133
					$14,402		$20,062					134
					555		31,512					135
					$151		$7,332					136
					3,263		11,136					137
					$1,557		$7,799					138
					17,839		949,270					139
					$8,585		$329,444					140
					28,795		1,979,720					141
	9,078	10,864	110		$23,165		$1,685,696					142
	$7,572	$8,179	$110				50,080					143
							$6,348					144
284,536	23,500	108,413	500	581,454	901,913		3,813,317	3,000	2,050	12,500	113,012	145
$49,337	$4,610	$19,463	$100	$92,062	$164,017		$760,694	$1,200	$220	$2,500	$16,952	146
							1,438					147
							$8,619					148
							1,700					149
							$5,652					150
							4,000					151
					3,595		$3,000					152
					$5,955		5,984					153
							$403					154
1,500			2,008				12,891,959			447,117		155
$240			$257				$1,151,019			$22,563		156
58,532		37,532		108,650	1,030,345	1,219,108	$61,380					157
$5,169		$1,422		$13,364	$51,902	$92,279	4,409,936	133,832	215,420	251,000	27,025	158
$63	$32,554				$193	$20	$178,047	$5,539	$8,966	$2,620	$623	159
10,920	221,543	486,216	158,029	79,623	2,047,844	47,589	509,750	12,504	14,348	4,325	9,820	160
$426	$9,237	$15,018	$3,345	$1,480	$83,217	$4,053	$167,000	$3,525	$4,282	$1,041	$3,766	161
9,706	20,264	83,849	4,961	10,201	165,694	28,913	$1,246,294	$22,127	$6,107	$4,850	$4,891	162
$1,726	$2,397	$7,514	$1,299	$2,196	$49,265	$15,182	$537,646	$15,981	$6,608	$8,530	$5,239	163
$24,800	$27,258	$42,487	$9,967	$14,758	$398,788	$26,647	$29,239	$250	$2,398		$45	164
$6,347	$13,378	$29,374	$6,003	$8,555	$188,202	$13,198	$187,495	$4,125	$4,089	$2,918	$1,804	165
	$200	$900	$40	$58	$15,062		$605,720	$885	$8,645	$5,678	$75	166
$1,765	$4,535	$9,312	$3,076	$4,688	$62,560	$5,045	$259,817	$2,345	$3,397	$200	$90	167
$5,560	$1,703	$7,785	$825	$3,966	$167,189		12,000					168
$4,577	$1,426	$5,739	$1,002	$4,380	$167,828	$750						
		100,000	1,000	150,000	264,667							

TABLE 31.—WOOLEN GOODS:

		United States.	Alabama.	Arkansas.	California.	Connecticut.
	Products:					
169	Total value	$118,430,158	$67,263	$42,401	$687,354	$8,097,218
	All-wool woven goods, whether woolen or worsted—					
170	Wool cloths, doeskins, cassimeres, cheviots, tweeds, indigo flannels, and broadcloths, for men's wear, square yards.	30,715,638	51,225	4,860	98,589	1,481,730
171	Value	$20,136,951	$19,792	$2,946	$92,352	$1,089,659
172	Worsted coatings, serges, and suitings, for men's wear, square yards	3,829,107			1,500	795,085
173	Value	$3,450,777			$2,500	$626,539
174	Woolen overcoatings, cloakings, kerseys, etc., for men's or women's wear, square yards.	17,011,186			75,095	2,122,730
175	Value	$14,426,064			$78,826	$1,851,673
176	Worsted overcoatings and cloakings, for men's or women's wear, square yards.	860,443				
177	Value	$559,612				
178	Wool dress goods, sackings, tricots, ladies' cloth, broadcloth, and other all-wool goods for women's wear, and opera and similar flannels, square yards.	30,273,238				2,301,173
179	Value	$11,378,030				$939,698
180	Worsted dress goods, cassimeres, serges, and other worsted goods for women's wear, and huntings, square yards.	3,231,517				
181	Value	$1,321,879				
182	Carriage cloths of all weights, square yards	1,220,408				66,848
183	Value	$696,999				$32,866
184	Flannels for underwear, square yards	9,324,720		764	549,044	1,754,930
185	Value	$2,344,559		$305	$164,408	$174,145
186	Blankets, square yards	5,266,643		1,500	386,873	
187	Value	$2,274,774		$900	$211,762	
188	Horse blankets, square yards	514,952			4,000	21,822
189	Value	$256,211			$2,000	$8,225
190	Carriage robes, square yards	615				
191	Value	$510				
192	Woven shawls, square yards	512,202				14,613
193	Value	$428,275				$20,824
	Union or cotton mixed, woven goods—					
194	Unions, tweeds, cheviots, cassimeres, or other goods for men's wear, square yards.	29,588,901		5,000	52,107	2,001,035
195	Value	$12,815,389		$1,800	$31,264	$863,243
196	Overcoatings and cloakings, square yards	5,675,464				745,878
197	Value	$3,164,749				$417,604
198	Sackings, tricots, and dress goods for women's wear, and opera and similar flannels, square yards.	10,105,548				629,149
199	Value	$3,341,341				$328,304
200	Flannels for underwear, square yards	6,217,094				
201	Value	$1,284,578				
202	Blankets, square yards	1,530,696		2,500	145,759	
203	Value	$561,649		$1,000	$62,736	
204	Horse blankets, square yards	1,094,537			390	
205	Value	$228,943			$206	
206	Carriage robes, square yards	460,210			24,000	
207	Value	$152,499			$16,800	
	Goods woven on cotton warps, with weft partly or wholly of wool, worsted or hair, or cotton weft with warp of wool—					
208	Wool-filling cassimeres, doeskins, jeans, tweeds, coatings, suitings, and other cotton-warp goods for men's wear, not specified below, square yards.	35,086,459		28,664		1,455,329
209	Value	$9,667,803		$9,504		$413,700
210	Worsted-filling cassimeres, doeskins, jeans, tweeds, coatings, suitings, and other cotton-warp goods for men's wear, not specified below, square yards.	2,122,792				355,288
211	Value	$866,017				$201,136
212	Wool-filling overcoatings and cloakings, square yards	3,917,498				61,769
213	Value	$1,430,430				$26,100
214	Astrakhans and similar goods, square yards	32,576				
215	Value	$14,150				
216	Satinets and linseys, square yards	13,051,729		4,000		929,900
217	Value	$2,873,181		$1,000		$205,120
218	Worsted-filling dress goods, delaines, cassimeres, serges, mohairs, alpacas, and other stuffs, for women's wear, square yards.	6,172,494				
219	Value	$1,957,100				
220	Wool-filling dress goods and repellents, square yards	7,149,016				247,558
221	Value	$1,735,446				$123,453
222	Domett flannels and shirtings, square yards	4,555,013				1,515,525
223	Value	$976,465				$280,692
224	Linings, Italian cloths, and lastings, square yards	3,169,709				
225	Value	$275,295				
226	Cotton-warp blankets, square yards	11,107,104		300	40,000	740
227	Value	$2,241,342		$96	$22,500	$525
228	Horse blankets, square yards	5,702,315				295,659
229	Value	$1,252,824				$78,981
230	Carriage robes, square yards	1,250,233				63,416
231	Value	$815,233				$25,366
	Upholstery goods and sundries—					
232	Woolen and worsted upholstery goods, square yards	403,954				
233	Value	$679,991				
234	Other upholstery goods	$2,062,611				
	Carpets and rugs—					
	Carpets—					
235	Ingrain, 2-ply, square yards	102,202	99,552			
236	Value	$28,144	$26,879			
237	Ingrain, 3-ply, square yards	543				
238	Value	$380				
	Felt goods—					
239	Felt cloths, square yards	113,059			2,000	
240	Value	$51,418			$2,000	
241	Trimming and lining felts, felt skirts and skirting, table and piano covers, saddle felts, square yards.	2,738				
242	Value	$375				
243	All other felts	$8,029				
	Hats—					
244	Wool hats, dozens	12,000				
245	Value	$5,400				
	Partly manufactured products for sale—					
246	Woolen yarn—all wool, pounds	29,143,476		5,760		
247	Value	$5,752,118		$2,804		
248	Worsted yarn and tops, pounds	1,343,983				
249	Value	$723,369				
250	Woolen or worsted yarn, union or merino, cotton mixed, pounds	13,437,264				
251	Value	$2,764,486				

BY STATES, 1900—Continued.

Georgia.	Illinois.	Indiana.	Iowa.	Kentucky.	Maine.	Maryland.	Massachusetts.	Michigan.	Minnesota.	Mississippi.	Missouri.	
$491,001	$932,987	$1,491,218	$296,500	$746,684	$11,633,232	$1,218,378	$30,888,104	$626,836	$496,812	$172,908	$348,974	169
.....	906,163	486,836	333,121	425	4,175,588	478,192	10,735,748	757,174	110,833	.....	8,825	170
.....	$654 213	$351,769	$155,060	$345	$2,420,866	$239,096	$6,879,279	$459,758	$66,700	.....	$5,950	171
.....	13,081	.....	.....	.....	.....	.....	874,613	.....	.....	.....	.....	172
.....	$10,280	.....	.....	.....	.....	.....	$1,272,831	.....	.....	.....	.....	173
.....	1,980	32,778	.....	.....	1,779,389	225,343	6,151,856	16,500	.....	.....	.....	174
.....	$1,386	$21,852	.....	.....	$1,602,482	$169,007	$5,544,178	$12,537	.....	.....	.....	175
.....	.....	75,000	.....	.....	.....	.....	6,270	.....	.....	.....	.....	176
.....	.....	$150,000	.....	.....	.....	.....	$3,314	.....	.....	.....	.....	177
.....	666	490,804	102,006	.....	5,403,946	.....	11,537,565	.....	69,131	.....	.....	178
....	$299	$217,866	$35,313	.....	$2,182,474	.....	$3,766,850	.....	$18,898	.....	.....	179
....	.....	.....	.....	.....	.....	.....	1,086,359	.....	18,667	.....	.....	180
.....	.....	.....	.....	.....	.....	.....	$403,917	.....	$4,800	.....	.....	181
.....	.....	.....	4,322	.....	.....	.....	802,311	925	.....	.....	.....	182
.....	.....	.....	$2,200	.....	.....	.....	$365,147	$273	.....	.....	.....	183
.....	1,722	718,372	111,517	2,240	1,754,267	8,000	2,219,563	12,875	33,583	.....	64,080	184
.....	$768	$224,596	$30,234	$896	$330,362	$2,400	$689,248	$10,532	$10,650	.....	$22,307	185
.....	87,504	598,639	129,180	120,360	185,281	400	.....	31,825	655,401	.....	258,792	186
.....	$67,240	$175,307	$42,184	$38,623	$52,101	$200	.....	$12,496	$325,670	.....	$129,832	187
.....	.....	2,706	2,000	.....	260,784	.....	13,750	200	1,080	.....	.....	188
.....	.....	$1,000	$800	.....	$152,907	.....	$9,000	$150	$270	.....	.....	189
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	615	190
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	$510	191
.....	.....	.....	.....	.....	33,949	.....	.....	.....	3,000	.....	.....	192
.....	.....	.....	.....	.....	$41,502	.....	.....	.....	$1,700	.....	.....	193
.....	120,000	1,930	.....	.....	2,664,583	1,934,597	3,849,310	.....	.....	403,903	.....	194
.....	$112,505	$547	.....	.....	$1,691,408	$807,675	$1,535,204	.....	.....	$149,294	.....	195
.....	.....	.....	.....	.....	598,969	.....	1,439,836	.....	.....	.....	.....	196
.....	.....	.....	.....	.....	$410,739	.....	$715,543	.....	.....	.....	.....	197
.....	.....	98,112	2,729	.....	1,043,906	.....	4,414,628	.....	2,875	.....	.....	198
.....	.....	$11,242	$798	.....	$366,540	.....	$1,345,081	.....	$745	.....	.....	199
.....	.....	.....	2,303	.....	227,400	.....	3,011,516	.....	.....	.....	.....	200
.....	.....	.....	$427	.....	$41,430	.....	$587,105	.....	.....	.....	.....	201
.....	67,161	49,344	85,621	48,704	500	.....	433,252	.....	1,965	.....	.....	202
.....	$17,100	$7,462	$16,746	$17,269	$200	.....	$218,928	.....	$551	.....	.....	203
.....	.....	.....	.....	.....	151,108	.....	1,375	.....	.....	.....	.....	204
.....	.....	.....	.....	.....	$51,161	.....	$655	.....	.....	.....	.....	205
.....	.....	.....	.....	.....	.....	.....	387,085	.....	.....	.....	.....	206
.....	.....	.....	.....	.....	.....	.....	$84,312	.....	.....	.....	.....	207
2,625,179	5,333	964,927	.....	2,287,878	1,121,716	.....	6,966,602	.....	.....	56,034	423,559	208
$460,469	$1,600	$165,036	.....	$496,302	$378,372	.....	$2,178,525	.....	.....	$21,064	$84,324	209
70,450	.....	.....	.....	308,330	120,000	.....	489,816	.....	.....	.....	.....	210
$16,205	.....	.....	.....	$68,460	$56,000	.....	$296,206	.....	.....	.....	.....	211
.....	.....	.....	.....	150	9,747	.....	1,055,861	.....	.....	.....	.....	212
.....	.....	.....	.....	$75	$10,657	.....	$224,270	.....	.....	.....	.....	213
.....	.....	.....	.....	.....	.....	.....	17,576	.....	.....	.....	.....	214
.....	.....	.....	.....	.....	.....	.....	$10,150	.....	.....	.....	.....	215
16,033	.....	378	.....	14,834	2,524	.....	10,326,148	.....	751	.....	.....	216
$2,780	.....	$301	.....	$5,773	$1,525	.....	$2,237,965	.....	$891	.....	.....	217
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	218
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	219
.....	.....	48,600	2,819	.....	1,744,568	.....	865,380	.....	.....	.....	.....	220
.....	.....	$26,268	$406	.....	$251,700	.....	$209,430	.....	.....	.....	.....	221
.....	.....	45,585	.....	.....	471,757	.....	167,000	.....	.....	.....	.....	222
.....	.....	$13,764	.....	.....	$72,700	.....	$182,700	.....	.....	.....	.....	223
.....	.....	.....	.....	.....	.....	.....	2,180,798	.....	.....	.....	.....	224
.....	.....	.....	.....	.....	.....	.....	$181,041	.....	.....	.....	.....	225
.....	79,080	1,500	15,870	1,296	1,824,470	.....	1,120,224	750	3,241	.....	168,000	226
.....	$20,505	$600	$2,856	$440	$535,233	.....	$216,295	$350	$1,946	.....	$44,000	227
.....	.....	.....	.....	.....	136,581	.....	824,315	.....	.....	.....	.....	228
.....	.....	.....	.....	.....	$54,897	.....	$130,477	.....	.....	.....	.....	229
.....	8,706	.....	.....	.....	700,000	.....	244,458	.....	.....	.....	.....	230
.....	$6,094	.....	.....	.....	$330,809	.....	$114,176	.....	.....	.....	.....	231
.....	.....	.....	.....	.....	292,087	.....	106,667	.....	.....	.....	.....	232
.....	.....	.....	.....	.....	$475,591	.....	$200,000	.....	.....	.....	.....	233
.....	.....	.....	.....	.....	.....	.....	$64,779	.....	.....	.....	.....	234
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	235
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	236
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	237
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	238
.....	.....	.....	.....	.....	.....	.....	110,034	.....	.....	.....	.....	239
.....	.....	.....	.....	.....	.....	.....	$48,455	.....	.....	.....	.....	240
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	241
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	242
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	243
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	244
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	245
.....	10,100	123,188	10,466	16,099	30,100	.....	676,140	177,667	79,621	.....	45,904	246
.....	$5,350	$68,422	$7,600	$8,149	$19,742	.....	$320,879	$110,975	$40,782	.....	$27,036	247
.....	.....	.....	.....	.....	.....	.....	50,000	.....	.....	.....	.....	248
.....	.....	.....	.....	.....	.....	.....	$30,000	.....	.....	.....	.....	249
.....	15,096	25,000	.....	152,320	7,637	.....	197,200	60,000	2,793	.....	.....	250
.....	$2,335	$8,750	.....	$63,636	$3,003	.....	$42,936	$17,400	$817	.....	.....	251

TABLE 37.—WOOLEN GOODS:

		United States.	Alabama.	Arkansas.	California.	Connecticut.
	Products—Continued.					
	Total value—Continued.					
	Partly manufactured products for sale—Continued.					
252	Mohair and similar yarn, pounds	215,947				
253	Value	$219,133				
254	Cotton yarn, pounds	3,455,979				52,557
255	Value	$507,286				$9,367
256	Wool card rolls, pounds	977,706	54,261	57,577		
257	Value	$395,808	$20,174	$21,746		
258	Noils, pounds	124,029				
259	Value	$18,936				
260	Waste, pounds	978,473	500			188,709
261	Value	$67,059	$50			$7,663
262	Shoddy, pounds	430,176				202,910
263	Value	$70,064				$38,552
264	Flocks, pounds	212,625				
265	Value	$21,037				
	Hosiery and knit goods—					
	Hose and half hose—					
	Woolen—					
266	Half hose, dozens	3,438				
267	Value	$11,714				
268	Hose, dozens	828				
269	Value	$3,122				
	Merino or mixed—					
270	Half hose, dozens	852				
271	Value	$1,806				
	Cotton—					
272	Hose, dozens	80				
273	Value	$180				
274	Leggins and gaiters, dozens	207				
275	Value	$1,656				
276	Gloves and mittens, dozens	1,238				
277	Value	$4,641				
278	Eiderdown shawls, dozens	361,000				
279	Value	$126,403				
280	Boot and shoe linings, square yards	11,420				
281	Value	$8,800				
282	Jersey cloth and stockinette, square yards	2,784				
283	Value	$1,010				
284	All other products	$1,190,662				$320,363
285	Amount received for contract work	$775,445	$368	$300		$13,470
	Comparison of products:					
286	Number of establishments reporting for both years	861	9	13	5	41
287	Value for census year	$109,712,214	$39,955	$42,401	$687,354	$7,645,096
288	Value for preceding business year	$95,443,073	$35,422	$40,206	$785,822	$6,699,210
	Power:					
289	Number of establishments reporting	1,024	10	11	5	51
290	Total horsepower	139,645	235	224	560	11,636
	Owned—					
	Engines—					
	Steam—					
291	Number	893	3	7	7	58
292	Horsepower	82,933	55	164	560	6,315
	Gas or gasoline—					
293	Number	12				1
294	Horsepower	191				25
	Water wheels—					
295	Number	954	7	3		77
296	Horsepower	52,358	176	14		5,180
	Electric motors—					
297	Number	51				4
298	Horsepower	1,217				76
	Other power—					
299	Number	2		1		
300	Horsepower	4		2		
	Rented—					
301	Electric, horsepower	678		14		
302	Other kind, horsepower	2,264	4			
303	Furnished to other establishments, horsepower	286				
	Establishments classified by number of persons employed, not including proprietors and firm members:					
304	Total number of establishments	1,035	11	13	5	51
305	No employees	114	4	6		1
306	Under 5	186	6	4		1
307	5 to 20	158		2		2
308	21 to 50	146		1	1	5
309	51 to 100	155	1		2	19
310	101 to 250	194			2	19
311	251 to 500	61				4
312	501 to 1,000	19				
313	Over 1,000	2				

		New Hampshire.	New Jersey.	New York.	North Carolina.	Ohio.
1	Number of establishments	43	13	65	16	35
	Character of organization:					
2	Individual	9	3	28	9	16
3	Firm and limited partnership	14	3	23	3	12
4	Incorporated company	20	7	14	4	7
	Capital.					
5	Total	$8,160,673	$4,549,798	$7,338,813	$347,830	$1,591,445
6	Land	$753,850	$248,502	$440,506	$18,355	$112,745
7	Buildings	$1,187,493	$703,322	$949,362	$42,400	$280,978
8	Machinery, tools, and implements	$1,872,793	$874,970	$1,871,495	$90,754	$472,411
9	Cash and sundries	$4,346,537	$2,723,004	$4,077,450	$196,321	$725,311
10	Proprietors and firm members	37	1	73	11	28

BY STATES, 1900—Continued.

Georgia.	Illinois.	Indiana.	Iowa.	Kentucky.	Maine.	Maryland.	Massachusetts.	Michigan.	Minnesota.	Mississippi.	Missouri.	
							200,000					252
							$200,000					253
		212,156										254
		$41,995										255
28,700	5,600	7,500	1,200	109,841	97,501			2,500	31,200	7,000	80,558	256
$11,347	$2,240	$4,275	$650	$45,981	$43,014			$950	$16,132	$2,100	$34,997	257
					122,698		1,331					258
					$18,404		$532					259
				2,700	95,358		390,932		6,108			260
				$135	$17,499		$22,892		$1,076			261
	224,160								2,956			262
	$30,972								$465			263
					22,568		132,500		3,823		1,800	264
					$597		$17,646		$331		$18	265
									60			266
									$252			267
									80			268
									$432			269
												270
												271
												272
												273
												274
												275
												276
												277
							361,000					278
							$126,403					279
							11,420					280
							$8,800					281
							2,784					282
							$1,010					283
			$1,226		$19,314		$120,175	$1,415	$1,200			284
$200		$166		$600			$281,770		$2,504	$450		285
14	12	19	11	15	69	3	92	14	17	1	23	286
$491,001	$931,447	$1,191,855	$287,030	$734,877	$10,907,266	$1,215,778	$29,216,027	$552,644	$457,683	$172,908	$342,694	287
$451,923	$915,648	$1,220,062	$328,630	$743,174	$9,054,710	$1,080,752	$25,608,516	$541,574	$431,167	$237,242	$418,836	288
14	13	20	12	36	75	4	131	16	19	4	25	289
748	1,269	1,955	485	1,232	13,784	1,020	36,373	1,106	971	422	697	290
5	13	21	5	28	51	4	187	15	12	4	20	291
340	1,054	1,695	343	1,101	4,080	450	21,858	971	416	407	600	292
		2						1				293
		35						12				294
13	4	6	8	9	119	9	202	3	11	1	5	295
375	175	215	142	116	8,604	570	14,245	58	396	15	91	296
2	5	1					9	2	2			297
33	10	10					170	30	30			298
												299
												300
				15	525			15				301
40					575		100	20	129		6	302
					190				20		40	303
14	13	20	12	36	76	4	131	16	19	4	25	304
		1	3	6	7	1		1	3		2	305
9	2	4	1	18	13			3	5	2	15	306
	3	4	4	7	5		12	6	8	1	5	307
1	3	3	1	1	6		23	4	2		1	308
1	1	3	2	2	12		29					309
3	3	4	1	1	26		44	2	1		2	310
	1	1		1	6	3	15			1		311
					1		8					312
												313

Oregon.	Pennsylvania.	Rhode Island.	Tennessee.	Texas.	Utah.	Vermont.	Virginia.	West Virginia.	Wisconsin.	All other states.[1]	
11	193	26	51	3	6	23	28	33	32	7	1
3	83	6	33	1		10	10	22	16	3	2
1	83	7	9	1	2	6	9	5	8		3
7	27	13	9	1	4	7	9	6	8	4	4
$1,175,820	$19,405,505	$6,068,073	$2,399,518	$285,663	$454,981	$3,001,347	$783,527	$683,683	$1,794,055	$540,424	5
$102,796	$1,051,999	$636,200	$57,103	$18,250	$32,620	$133,625	$44,656	$28,037	$154,654	$24,800	6
$135,221	$2,576,460	$925,412	$271,816	$54,150	$91,630	$473,114	$116,971	$92,408	$265,896	$111,800	7
$315,907	$5,612,433	$1,240,042	$1,189,560	$112,792	$96,905	$731,290	$180,252	$222,080	$433,588	$191,740	8
$621,896	$10,164,613	$3,266,419	$881,039	$100,471	$233,826	$1,663,318	$441,648	$341,158	$939,917	$212,084	9
3	231	24	29	1		21	15	12	26	2	10

[1] Includes establishments distributed as follows: Delaware, 2; Idaho, 1; Kansas, 1; North Dakota, 1; South Carolina, 1; Wyoming, 1.

TABLE 31.—WOOLEN GOODS:

		New Hampshire.	New Jersey.	New York.	North Carolina.	Ohio.
	Salaried officials, clerks, etc.:					
11	Total number	129	43	210	17	57
12	Total salaries	$152,574	$85,619	$231,733	$9,065	$64,776
	Officers of corporations—					
13	Number	35	6	16	7	14
14	Salaries	$49,602	$23,500	$53,775	$3,625	$18,800
	General superintendents, managers, clerks, etc.—					
15	Total number	94	37	194	10	43
16	Total salaries	$102,972	$62,119	$177,958	$5,440	$45,976
	Men—					
17	Number	76	35	177	10	37
18	Salaries	$95,270	$60,775	$171,793	$5,440	$43,616
	Women—					
19	Number	18	2	17	.....	6
20	Salaries	$7,702	$1,344	$6,165	.....	$2,360
	Wage-earners, including pieceworkers and total wages:					
21	Greatest number employed at any one time during the year	4,888	3,184	4,694	246	805
22	Least number employed at any one time during the year	3,551	2,716	3,338	170	634
23	Average number	4,042	2,942	4,033	206	636
24	Wages	$1,571,520	$1,013,232	$1,399,527	$39,094	$201,547
	Men, 16 years and over—					
25	Average number	2,657	1,690	1,913	106	266
26	Wages	$1,131,594	$685,439	$827,179	$25,675	$110,850
	Women, 16 years and over—					
27	Average number	1,299	1,065	1,974	91	341
28	Wages	$423,829	$301,580	$549,253	$12,755	$87,037
	Children, under 16 years—					
29	Average number	86	187	146	9	29
30	Wages	$16,097	$26,213	$23,095	$664	$3,660
	Average number of wage-earners, including pieceworkers, employed during each month:					
	Men, 16 years and over—					
31	January	2,574	1,599	1,875	98	221
32	February	2,725	1,641	1,708	94	224
33	March	2,822	1,726	1,842	99	243
34	April	2,829	1,735	1,885	101	281
35	May	2,767	1,712	1,874	103	289
36	June	2,508	1,701	1,878	112	279
37	July	2,516	1,672	1,897	115	281
38	August	2,526	1,689	1,902	109	288
39	September	2,569	1,689	1,958	111	294
40	October	2,645	1,683	1,996	113	284
41	November	2,712	1,712	2,064	111	266
42	December	2,685	1,727	2,077	100	243
	Women, 16 years and over—					
43	January	1,269	1,021	2,024	86	297
44	February	1,237	1,035	1,919	76	296
45	March	1,302	1,060	1,997	87	330
46	April	1,341	1,076	2,052	77	399
47	May	1,330	1,066	1,981	81	407
48	June	1,217	1,072	1,940	87	344
49	July	1,273	1,059	1,901	102	348
50	August	1,254	1,070	1,927	103	357
51	September	1,290	1,075	2,064	108	348
52	October	1,339	1,058	1,990	108	326
53	November	1,349	1,088	1,946	102	333
54	December	1,390	1,102	1,947	78	301
	Children, under 16 years—					
55	January	93	176	133	6	22
56	February	89	185	135	6	28
57	March	88	189	138	6	27
58	April	84	194	140	4	30
59	May	87	196	140	5	31
60	June	76	185	144	13	29
61	July	80	177	147	14	35
62	August	83	180	150	11	34
63	September	87	185	150	14	30
64	October	87	185	152	10	30
65	November	88	197	157	12	29
66	December	89	191	160	9	29
	Skilled operatives, average number:					
	Spinners—					
67	Men, 16 years and over	536	176	328	12	73
68	Women, 16 years and over	28	94	308	.....	39
69	Children, under 16 years	.....	124	4	.....	12
	Weavers—					
70	Men, 16 years and over	967	467	401	4	27
71	Women, 16 years and over	807	650	561	32	126
72	Children, under 16 years	.....	.....	5	.....	5
	Knitters—					
73	Men, 16 years and over	.....	.....	.....	.....	.....
	Finishers—					
74	Men, 16 years and over	492	180	196	6	54
75	Women, 16 years and over	232	129	174	2	30
76	Children, under 16 years	7	7	14	.....	.....
	Machinery:					
77	Sets of woolen cards	335	138	269	25	67
78	Combing machines, number	13	4	2	.....	.....
79	Of American manufacture	5	.....	.....	.....	.....
80	Of foreign manufacture	8	4	2	.....	.....
81	Spindles, number	125,532	61,672	88,249	5,334	23,953
	Spinning—					
82	Woolen	113,604	56,878	81,180	5,080	22,652
83	Worsted	5,600	4,038	1,564	.....	.....
84	Cotton	.....	.....	.....	.....	.....
	Doubling—					
85	Woolen	3,320	756	4,629	254	1,301
86	Worsted	3,008	.....	876	.....	.....
87	Cotton	.....	.....	.....	.....	.....
88	Looms on woolen or worsted goods, number	2,071	1,240	1,425	161	312
	Broad, 50 inches or over, reed space—					
89	On woolen goods	1,705	851	1,080	39	249
90	On worsted goods	33	25	110	.....	18

BY STATES, 1900—Continued.

Oregon.	Pennsylvania.	Rhode Island.	Tennessee.	Texas.	Utah.	Vermont.	Virginia.	West Virginia.	Wisconsin.	All other states.[1]	
29	353	79	64	10	14	51	39	16	53	29	11
$32,820	$399,570	$143,538	$67,673	$15,763	$10,050	$70,908	$37,667	$17,440	$65,210	$30,432	12
9	40	16	14	3	1	13	9	2	13	5	13
$8,500	$85,395	$48,580	$29,700	$5,000	$125	$20,872	$10,720	$3,700	$17,560	$5,800	14
20	313	63	50	7	13	38	30	14	40	21	15
$24,320	$314,175	$94,958	$37,973	$10,763	$9,925	$50,036	$26,947	$13,740	$47,650	$24,632	16
18	288	58	50	7	12	35	29	14	38	21	17
$23,480	$303,299	$91,990	$37,973	$10,763	$9,867	$48,436	$26,447	$13,740	$46,780	$23,632	18
2	25	5	.....	.....	1	3	1	.....	2	3	19
$840	$10,876	$2,968	.....	.....	$58	$1,600	$500	.....	$870	$1,000	20
797	15,481	3,666	1,739	159	238	1,958	452	488	974	544	21
594	12,327	2,562	1,682	154	182	1,424	352	365	781	303	22
672	13,721	2,710	1,632	134	194	1,484	362	384	861	454	23
$208,695	$5,031,932	$1,104,054	$294,116	$40,674	$69,681	$577,249	$103,773	$99,027	$259,258	$178,736	24
423	7,588	1,814	557	76	100	1,030	214	226	396	195	25
$147,442	$3,305,619	$807,288	$148,817	$29,066	$43,217	$435,955	$72,954	$70,315	$152,060	$95,082	26
216	4,967	799	759	34	65	427	127	138	392	179	27
$56,379	$1,575,655	$277,232	$116,228	$8,388	$20,786	$135,982	$28,506	$25,722	$96,356	$63,384	28
33	1,166	97	316	24	29	27	21	20	73	80	29
$4,874	$210,658	$19,534	$29,071	$3,220	$5,678	$5,312	$2,313	$1,990	$10,842	$20,270	30
431	7,162	1,618	559	77	83	1,051	196	188	391	194	31
413	7,410	1,637	538	75	84	1,073	200	185	395	189	32
413	7,442	1,666	571	77	82	1,173	216	182	397	180	33
376	7,607	1,684	531	77	93	1,152	225	219	401	173	34
398	7,595	1,728	550	75	105	1,079	190	233	391	175	35
405	7,498	1,696	550	75	106	966	198	240	340	159	36
432	7,488	1,631	550	75	111	962	205	235	404	215	37
436	7,694	1,787	547	75	111	935	241	241	420	220	38
438	7,708	1,859	564	75	109	962	238	244	411	218	39
444	7,768	2,106	569	75	113	977	224	246	416	215	40
451	7,870	2,166	580	75	116	1,001	219	248	398	200	41
439	7,820	2,191	581	75	90	1,033	215	250	384	208	42
213	4,795	739	775	48	59	448	119	111	406	166	43
210	4,875	659	750	30	57	443	118	107	401	166	44
198	4,959	683	781	48	55	488	128	98	387	149	45
174	4,939	702	744	48	61	468	131	141	386	153	46
199	4,924	712	751	30	68	444	114	147	381	157	47
199	4,969	721	751	30	67	404	119	139	311	147	48
223	4,853	715	749	30	68	400	124	137	374	179	49
224	4,980	726	749	30	67	377	135	157	399	208	50
240	5,037	789	751	30	68	386	141	162	419	211	51
246	5,132	1,052	751	30	67	409	141	164	431	211	52
236	5,154	1,036	778	30	76	419	129	155	430	198	53
229	4,981	1,054	769	30	63	438	126	142	383	199	54
31	1,095	84	315	34	26	30	11	15	75	88	55
32	1,126	88	307	20	26	30	13	15	68	91	56
31	1,128	91	320	34	26	31	16	18	76	93	57
34	1,103	100	311	34	26	23	18	21	76	78	58
33	1,116	93	317	20	31	23	21	22	70	63	59
31	1,133	86	318	20	31	21	24	26	65	58	60
31	1,181	90	317	20	32	24	24	25	72	76	61
31	1,198	94	315	20	32	25	25	24	76	76	62
34	1,198	102	314	20	31	27	30	22	76	81	63
34	1,207	109	318	20	31	28	29	22	74	78	64
35	1,256	107	324	20	31	28	24	17	72	89	65
35	1,248	121	312	20	28	29	22	15	73	92	66
82	865	365	82	9	15	143	39	39	32	39	67
32	142	18	18	1	3	12	1	6	54	4	68
5	232	.....	91	3	8	5	9	8	1	42	69
108	2,016	531	59	40	31	279	41	.....	100	69	70
110	2,216	520	506	28	33	224	53	65	115	81	71
4	12	.....	15	10	2	5	3	1	2	.....	72
.....	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	73
51	428	200	31	11	10	105	28	47	46	41	74
44	315	203	9	6	4	73	3	11	49	30	75
3	48	8	2	5	.....	3	.....	.....	2	.....	76
35	980	220	99	4	17	124	52	53	69	20	77
.....	22	17	.....	.....	.....	.....	2	1	3	.....	78
.....	12	13	.....	.....	.....	.....	2	1	3	.....	79
.....	10	4	.....	.....	.....	.....	.....	.....	.....	.....	80
12,187	348,169	124,082	38,654	2,600	6,971	38,920	14,322	14,180	25,904	11,048	81
11,199	307,118	100,190	33,035	2,600	6,192	37,460	13,171	13,520	22,760	10,172	82
.....	9,000	2,461	.....	.....	.....	.....	.....	.....	912	.....	83
.....	13,460	10,000	5,000	.....	432	.....	.....	.....	.....	.....	84
988	13,317	8,928	619	.....	350	1,460	1,151	660	1,878	876	85
.....	4,414	2,500	.....	.....	.....	.....	.....	.....	354	.....	86
.....	860	.....	.....	.....	.....	.....	.....	.....	.....	.....	87
175	8,057	1,418	1,239	94	94	670	221	242	272	276	88
172	2,379	602	143	48	73	561	130	157	236	71	89
.....	696	282	.....	.....	.....	5	.....	.....	.....	.....	90

[1] Includes establishments distributed as follows: Delaware, 2; Idaho, 1; Kansas, 1; North Dakota, 1; South Carolina, 1; Wyoming, 1.

TABLE 31.—WOOLEN GOODS:

		New Hampshire.	New Jersey.	New York.	North Carolina.	Ohio.
	Spindles, number—Continued.					
	Looms on woolen or worsted goods, number—Continued.					
	Narrow, under 50 inches, reed space—					
91	On woolen goods	333	364	216	122	75
92	On worsted goods			4		
	Hand—					
93	On woolen or worsted goods			15		
94	Looms on carpets and rugs, number					
	Ingrain—					
95	Hand					
96	Power					
	Body Brussels—					
97	Power					
98	Formers for fur hats					
99	Braiders			9,628		
100	Knitting machines, number			7		6
	Spring-beard needle—					
101	Circular, ribbed					
102	Circular, plain					
	Latch needle—					
103	Flat, plain			7		
104	Full fashioned, flat, ribbed					
105	Circular, ribbed					6
106	Circular, plain					
107	Circular, hosiery, automatic					
108	Lamb and other variety, hand					
	Miscellaneous expenses:					
109	Total	$346,316	$461,513	$761,841	$14,527	$86,394
110	Rent of works	$5,756	$16,380	$38,824		$2,100
111	Taxes, not including internal revenue	$39,490	$30,021	$23,906	$1,443	$7,936
112	Rent of offices, insurance, interest, and all sundry expenses not hitherto included.	$301,070	$415,112	$658,545	$7,934	$76,358
113	Contract work			$40,566	$5,150	
	Material used:					
114	Total cost	$4,741,396	$2,700,889	$3,499,864	$204,961	$869,236
	Wool—					
115	Foreign, in condition purchased, pounds	1,098,990	115,797	800,110		7,025
116	Cost	$306,024	$33,318	$272,142		$1,426
117	Domestic, in condition purchased, pounds	10,201,344	3,883,063	5,600,556	577,750	1,551,667
118	Cost	$2,554,191	$1,603,959	$1,360,111	$147,445	$375,004
119	Foreign and domestic, etc., scoured, pounds	6,122,739	3,299,612	4,342,006	403,395	1,089,775
	Animal hair and fur—					
120	Camel, alpaca, and vicuna hair, pounds			2,396		
121	Cost			$533		
122	Mohair, pounds	20,205				500
123	Cost	$5,823				$485
124	Buffalo, cow, and other animal hair and fur, pounds	142,414		789,000		1,927
125	Cost	$6,995		$41,130		$135
126	Cotton, bales	5,535	2,604	1,811	10	751
127	Pounds	2,766,830	1,295,903	834,477	5,000	374,111
128	Cost	$155,910	$90,699	$75,204	$400	$31,677
	Materials not made in mill—					
129	Shoddy, pounds	4,181,362	86,000	560,501	38,365	217,940
130	Cost	$353,251	$12,885	$101,190	$6,553	$29,470
131	Wool waste and noils, pounds	306,586	539,663	842,318	25,391	256,691
132	Cost	$102,836	$64,840	$243,402	$5,078	$37,953
133	Camel, alpaca, vicuna noils, pounds	3,903				4,233
134	Cost	$740				$697
135	Mohair noils, pounds	12,840		11,500		
136	Cost	$3,262		$3,332		
137	Tops, pounds			14,616		
138	Cost			$6,064		
	Yarns not made in mill—					
139	Woolen, pounds	12,866	500	345,090		144,200
140	Cost	$6,350	$380	$212,310		$58,200
141	Worsted, pounds	40,538	116,660	245,517		64,518
142	Cost	$31,031	$82,192	$259,638		$41,461
143	Merino, pounds			14,500		2,000
144	Cost			$6,900		$1,000
145	Cotton, pounds	1,991,594	627,791	1,447,301	91,763	197,936
146	Cost	$146,657	$127,482	$174,134	$13,227	$39,356
147	Silk, pounds			9,462		34
148	Cost			$44,447		$25
149	Spun silk, pounds	447		2,346		
150	Cost	$1,617		$2,957		
151	Linen, pounds					
152	Cost					
153	Jute, ramie, or other of vegetable fiber, pounds			25,000		10,120
154	Cost			$1,010		$1,328
155	Shoddy made in mill for use therein, pounds	2,251,639	3,059,698	630,084		897,397
156	Cost	$260,000	$186,667	$43,697		$111,069
157	All other materials which are component of the product	$7,790		$144,142	$320	$4,686
158	Soap, pounds	1,388,173	836,528	973,304	59,181	337,486
159	Cost	$52,123	$37,194	$38,100	$1,986	$14,160
160	Oil for preparing wool for cards or combs, gallons	129,990	90,106	96,274	5,838	46,866
161	Cost	$43,608	$24,618	$27,341	$1,366	$10,865
162	Chemicals and dyestuffs	$265,354	$217,272	$193,351	$10,517	$61,795
163	Fuel	$123,978	$66,523	$78,497	$5,322	$18,027
164	Rent of power and heat	$3,423	$7,600	$5,740	$1,687	$20
165	Mill supplies	$54,211	$21,084	$31,352	$1,982	$8,200
166	All other materials	$179,881	$70,421	$88,029	$1,804	$11,234
167	Freight	$76,341	$53,755	$45,111	$7,274	$10,963
168	Cotton yarn made in mill for use therein, pounds	45,000				2,000
	Products:					
169	Total values	$7,624,062	$4,755,393	$6,715,005	$289,506	$1,321,751
	All-wool woolen goods, whether woolen or worsted—					
170	Wool cloths, doeskins, cassimeres, cheviots, tweeds, indigo flannels, and broadcloths, for men's wear, square yards.	2,033,776	558,698	2,568,137	27,468	607,675
171	Value	$1,290,897	$412,320	$1,982,270	$19,772	$189,735
172	Worsted coatings, serges, and suitings, for men's wear, square yards	115,962	98,731	93,075		150,000
173	Value	$94,612	$78,226	$109,560		$50,000
174	Woolen overcoatings, cloakings, kerseys, etc., for men's or women's wear, square yards.	2,167,922	320,876	144,851		44,400
175	Value	$1,570,343	$279,299	$145,411		$26,346

BY STATES, 1900—Continued.

Oregon.	Pennsylvania.	Rhode Island.	Tennessee.	Texas.	Utah.	Vermont.	Virginia.	West Virginia.	Wisconsin.	All other states.[1]	
3	3,912	530	1,096	36	21	104	90	81	36	205	91
	1,060	4		10							92
	10						1	1			93
	8										94
	6										95
	2										96
											97
	500										98
	1,500										99
	50										100
											101
	20										102
											103
	5										104
	5										105
	16										106
	2										107
	2										108
$74,323	$1,444,778	$287,695	$86,141	$17,428	$17,354	$98,541	$22,780	$31,649	$104,250	$30,524	109
$117,422	$28,104	$355				$7,000	$1,770	$2,488	$1,346		110
$5,669	$43,379	$17,010	$8,045	$1,528	$2,463	$10,452	$2,015	$2,932	$9,849	$2,818	111
$68,654	$1,014,310	$212,476	$77,711	$15,900	$14,891	$81,014	$18,125	$26,229	$92,680	$27,706	112
	$269,667	$30,105				$75	$870		$375		113
$465,855	$15,874,544	$3,386,993	$874,359	$117,327	$121,828	$1,554,525	$391,659	$319,313	$899,711	$554,553	114
	13,308,519	337,445	101,766			341,902	9,000	3,000		395	115
	$2,035,725	$115,205	$30,783			$141,838	$2,190	$600		$140	116
1,997,954	11,712,697	7,555,470	1,421,676	291,979	744,469	2,828,600	1,175,231	840,959	3,483,348	1,139,089	117
$322,417	$3,036,405	$1,562,307	$405,487	$52,123	$84,662	$702,968	$295,664	$223,155	$711,265	$336,882	118
1,204,461	18,003,382	3,877,898	1,269,181	117,848	244,251	2,173,644	687,759	553,550	1,817,928	803,595	119
	121,513					75,058					120
	$12,919					$11,264					121
	4,131										122
	$1,444										123
	16,876,816	410									124
	$913,216	$24									125
206	25,780	2,951	5,247	46	107	1,299	93	182	225	7,619	126
86,993	12,098,656	1,062,552	2,602,988	18,700	53,790	342,273	36,416	72,197	119,776	389,052	127
$8,458	$838,295	$119,130	$173,081	$1,124	$4,804	$54,418	$4,081	$6,734	$15,685	$38,761	128
73,084	6,107,141	1,112,319	487,089	19,266	1,761	822,069	124,351	135,912	308,033	103,919	129
$14,183	$699,095	$188,020	$58,036	$2,896	$352	$108,943	$23,344	$19,806	$55,612	$16,380	130
	5,230,394	820,368	5,000			87,223	15,000	40,000	30,248	105,373	131
	$1,027,984	$281,859	$500			$10,097	$2,175	$9,745	$7,227	$30,592	132
	45,977										133
	$8,367										134
	35,907					15,000					135
	$6,661					$3,000					136
	4,000	254,311				771					137
	$1,070	$137,844				$419					138
	1,319,493	182,441	500				500				139
	$560,153	$66,098	$225				$225				140
	2,596,207	497,993			270	4,974	330	70		2,081	141
	$1,767,860	$347,110			$219	$3,488	$274	$73		$1,422	142
	3,141,273						3,392				143
	$500,439						$848				144
20,391	9,417,582	200,817	586,833	68,000	10,422	214,312	65,018	90,220	22,989	6,001	145
$5,578	$1,712,056	$45,973	$100,497	$20,417	$2,222	$44,837	$11,477	$11,583	$5,211	$323	146
	23,022										147
	$92,216										148
	18,378	86				1,000					149
	$58,373	$283				$3,750					150
	250										151
	$43										152
	1,055,574	8,464	10,017					100			153
	$51,057	$1,272	$1,802					$15			154
280,876	8,954,396	470,830	20,688			1,325,120					155
$27,157	$459,586	$35,324	$1,522			$181,888					156
	$230,521	$181		$25,758		$10,000	$188				157
200,678	3,110,845	376,008	99,947	10,000	109,709	503,842	123,685	201,384	327,104	489,441	158
$5,585	$132,437	$16,931	$3,441	$400	$2,212	$21,912	$4,587	$7,188	$12,880	$24,906	159
29,102	693,465	102,680	65,355	90	4,587	50,450	11,613	8,451	28,230	42,408	160
$4,467	$180,639	$30,480	$4,097	$185	$1,792	$19,288	$3,125	$2,164	$5,399	$21,635	161
$40,025	$597,115	$141,120	$34,689	$6,626	$11,986	$101,291	$19,695	$14,720	$39,848	$58,227	162
$20,194	$246,967	$79,011	$14,036	$2,744	$6,765	$48,909	$8,694	$6,474	$27,358	$10,851	163
$24	$32,159	$1,051	$28			$15	$450	$10	$932		164
$3,104	$103,338	$27,888	$14,346	$645	$2,005	$16,273	$3,515	$3,209	$8,035	$4,405	165
$2,937	$429,893	$160,833	$13,410		$1,322	$42,946	$3,356	$8,205	$4,873	$6,444	166
$11,726	$138,181	$29,049	$18,376	$4,409	$3,487	$26,981	$7,771	$5,632	$4,786	$3,582	167
3,000	1,301,019	147,184	138,129		4,740	50,000					168
$897,824	$25,389,344	$5,330,550	$1,517,191	$196,340	$222,343	$2,572,646	$627,581	$507,300	$1,435,368	$790,081	169
566,107	1,652,012	1,735,526	10,404	26,865	488	468,989	256,948	33,385	391,594	148,257	170
$361,147	$1,128,958	$1,308,525	$4,053	$16,302	$422	$354,199	$236,212	$16,620	$227,515	$150,219	171
878	859,429	825,253						1,500			172
$1,000	$525,090	$679,439						$600			173
370,095	1,403,734	614,586			330	1,072,946	154,344	9,000	297,346	5,085	174
$127,927	$1,225,883	$698,244			$330	$773,190	$110,041	$3,600	$179,915	$3,594	175

[1] Includes establishments distributed as follows: Delaware, 2; Idaho, 1; Kansas, 1; North Dakota, 1; South Carolina, 1; Wyoming, 1.

TABLE 31.—WOOLEN GOODS:

		New Hampshire.	New Jersey.	New York.	North Carolina.	Ohio.
	Products—Continued.					
	Total value—Continued.					
	All wool woolen goods, whether woolen or worsted—Continued.					
176	Worsted overcoatings and cloakings, for men's or women's wear, square yards.	.....	372,924	.....	.....	.....
177	Value	.....	$198,892	.....	.....	.....
178	Wool dress goods, sackings, tricots, ladies' cloth, broadcloth, and other all-wool goods for women's wear, and opera and similar flannels, square yards.	3,545,096	42,021	2,349,657	1,646	200,446
179	Value	$1,432,033	$33,095	$956,169	$823	$36,389
180	Worsted dress goods, cassimeres, serges, and other worsted goods for women's wear, and buntings, square yards.	.....	.....	217,195	.....	.....
181	Value	.....	.....	$125,644	.....	.....
182	Carriage cloths of all weights, square yards	1,087	.....	247,998	.....	6,000
183	Value	$807	.....	$222,725	.....	$8,000
184	Flannels for underwear, square yards	252,489	2,813	51,972	1,718	27,067
185	Value	$81,402	$1,125	$17,168	$474	$9,090
186	Blankets, square yards	56,875	.....	7,920	.....	285,633
187	Value	$35,332	.....	$4,750	.....	$132,045
188	Horse blankets, square yards	.....	.....	600	.....	4,783
189	Value	.....	.....	$500	.....	$3,400
190	Carriage robes, square yards	.....	.....	.....	.....	.....
191	Value	.....	.....	.....	.....	.....
192	Woven shawls, square yards	.....	.....	93,921	.....	400
193	Value	.....	.....	$77,041	.....	$180
	Union, or cotton mixed, woven goods—					
194	Unions, tweeds, cheviots, cassimeres, or other goods for men's wear, square yards.	1,081,060	2,103,591	432,781	.....	.....
195	Value	$441,963	$1,874,030	$138,771	.....	.....
196	Overcoatings and cloakings, square yards	52,949	130,308	138,768	.....	.....
197	Value	$26,860	$102,942	$130,454	.....	.....
198	Sackings, tricots, and dress goods for women's wear, and opera and similar flannels, square yards.	2,259,929	.....	712,132	.....	120,000
199	Value	$673,175	.....	$246,317	.....	$68,000
200	Flannels for underwear, square yards	622,651	.....	221,400	.....	100,460
201	Value	$116,837	.....	$40,356	.....	$24,100
202	Blankets, square yards	.....	.....	.....	.....	52,500
203	Value	.....	.....	.....	.....	$22,500
204	Horse blankets, square yards	.....	.....	.....	.....	72,000
205	Value	.....	.....	.....	.....	$36,000
206	Carriage robes, square yards	.....	.....	.....	.....	15,000
207	Value	.....	.....	.....	.....	$27,500
	Goods woven on cotton warps, with weft partly or wholly of wool, worsted, or hair, or cotton weft with warp of wool—					
208	Wool-filling cassimeres, doeskins, jeans, tweeds, coatings, suitings, and other cotton-warp goods for men's wear, not specified below, square yards.	988,474	1,164,768	1,087,925	319,212	221,197
209	Value	$465,976	$462,331	$419,025	$97,670	$89,773
210	Worsted-filling cassimeres, doeskins, jeans, tweeds, coatings, suitings, and other cotton-warp goods for men's wear, not specified below, square yards.	75,000	.....	64,322	7,445	.....
211	Value	$35,000	.....	$64,322	$3,254	.....
212	Wool-filling overcoatings and cloakings, square yards	5,475	2,364,063	.....	.....	.....
213	Value	$3,650	$930,106	.....	.....	.....
214	Astrakhans and similar goods, square yards	.....	.....	.....	.....	15,000
215	Value	.....	.....	.....	.....	$4,000
216	Satinets and linseys, square yards	648,267	.....	.....	26,404	4,230
217	Value	$86,166	.....	.....	$8,202	$3,140
218	Worsted-filling dress goods, delaines, cassimeres, serges, mohairs, alpacas, and other stuffs, for women's wear, square yards.	.....	.....	91,009	.....	23,500
219	Value	.....	.....	$49,752	.....	$3,843
220	Wool-filling dress goods and repellents, square yards	1,739,682	432,202	272,176	.....	15,000
221	Value	$390,276	$118,855	$62,242	.....	$10,000
222	Domett flannels and shirtings, square yards	12,800	42,750	591,454	.....	30,000
223	Value	$3,200	$50,000	$100,585	.....	$6,000
224	Linings, Italian cloths, and lastings, square yards	551,011	.....	.....	.....	.....
225	Value	$86,734	.....	.....	.....	.....
226	Cotton-warp blankets, square yards	477,856	.....	115,500	263,599	209,658
227	Value	$133,724	.....	$32,580	$102,409	$84,523
228	Horse blankets, square yards	1,387,015	.....	227,500	.....	537,500
229	Value	$323,387	.....	$44,375	.....	$215,000
230	Carriage robes, square yards	.....	.....	150,000	.....	32,000
231	Value	.....	.....	$180,000	.....	$24,000
	Upholstery goods and sundries—					
232	Woolen and worsted upholstery goods, square yards	.....	.....	.....	.....	.....
233	Value	.....	.....	.....	.....	.....
234	Other upholstery goods	.....	.....	$1,334,658	.....	.....
	Carpets and rugs—					
	Carpets—					
235	Ingrain, 2-ply, square yards	.....	.....	.....	.....	.....
236	Value	.....	.....	.....	.....	.....
237	Ingrain, 3-ply, square yards	.....	.....	.....	.....	.....
238	Value	.....	.....	.....	.....	.....
	Felt goods—					
239	Felt cloths, square yards	.....	.....	.....	1,025	.....
240	Value	.....	.....	.....	$963	.....
241	Trimming and lining felts, felt skirts and skirting, table and piano covers, saddle felts, square yards.	.....	.....	.....	.....	2,700
242	Value	.....	.....	.....	.....	$325
243	All other felts	.....	.....	$8,029	.....	.....
	Hats—					
244	Wool hats, dozens	.....	.....	.....	.....	12,000
245	Value	.....	.....	.....	.....	$5,400
	Partly manufactured products for sale—					
246	Woolen yarn—all wool, pounds	48,093	.....	491,900	89,204	190,250
247	Value	$22,141	.....	$80,490	$48,965	$89,898
248	Worsted yarn and tops, pounds	354,453	300,000	.....	.....	.....
249	Value	$177,584	$210,000	.....	.....	.....
250	Woolen or worsted yarn, union or merino, cotton mixed, pounds	161,638	.....	350,000	.....	302,853
251	Value	$45,671	.....	$105,000	.....	$92,557
252	Mohair and similar yarn, pounds	.....	.....	.....	.....	.....
253	Value	.....	.....	.....	.....	.....
254	Cotton yarn, pounds	8,000	.....	.....	.....	.....
255	Value	$1,600	.....	.....	.....	.....
256	Wool card rolls, pounds	1,000	.....	15,465	14,475	6,775
257	Value	$500	.....	$23,290	$6,358	$3,588
258	Noils, pounds	.....	.....	.....	.....	.....
259	Value	.....	.....	.....	.....	.....

BY STATES, 1900—Continued.

Oregon.	Pennsylvania.	Rhode Island.	Tennessee.	Texas.	Utah.	Vermont.	Virginia.	West Virginia.	Wisconsin.	All other states.[1]	
1,236	101,230	.....	.....	.....	.....	.....	.....	.....	.....	3,723	176
$1,367	$202,315	.....	.....	.....	.....	.....	.....	.....	.....	$3,724	177
1,101	2,397,543	18,270	.....	.....	39,151	1,376,534	19,125	188,839	44,970	143,548	178
$381	$1,010,031	$18,270	.....	.....	$17,571	$500,562	$6,700	$56,961	$41,277	$76,370	179
1,735	1,890,441	14,394	.....	.....	.....	.....	.....	2,726	.....	.....	180
$1,490	$775,069	$9,596	.....	.....	.....	.....	.....	$1,363	.....	.....	181
.....	26,000	64,917	.....	.....	.....	.....	.....	.....	.....	.....	182
.....	$16,800	$48,181	.....	.....	.....	.....	.....	.....	.....	.....	183
301,273	633,091	.....	5,047	.....	7,438	110,600	6,013	362,212	309,412	20,218	184
$90,377	$238,201	.....	$1,581	.....	$2,281	$34,000	$2,725	$89,076	$103,899	$12,306	185
295,797	1,463,544	.....	29,686	.....	18,813	30,000	31,605	21,113	351,555	215,017	186
$180,626	$554,913	.....	$15,234	.....	$8,028	$9,000	$15,481	$9,599	$126,273	$127,175	187
.....	173,227	.....	.....	.....	.....	30,000	.....	.....	.....	.....	188
.....	$65,959	.....	.....	.....	.....	$12,000	.....	.....	.....	.....	189
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	190
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	191
.....	331,184	.....	.....	.....	5,239	.....	.....	.....	19,784	10,052	192
.....	$236,331	.....	.....	.....	$2,983	.....	.....	.....	$21,698	$26,616	193
150,000	11,032,137	1,165,363	521,382	17,229	99,527	669,461	.....	.....	472,732	804,173	194
$10,000	$8,108,779	$782,578	$293,822	$9,283	$53,701	$234,949	.....	.....	$286,625	$357,918	195
399	2,287,661	280,696	.....	.....	.....	.....	.....	.....	.....	.....	196
$335	$1,146,490	$213,772	.....	.....	.....	.....	.....	.....	.....	.....	197
.....	326,393	79,686	.....	.....	14,445	401,564	.....	.....	.....	.....	198
.....	$45,382	$47,856	.....	.....	$93,960	$113,940	.....	.....	.....	.....	199
62,406	825,300	.....	.....	.....	.....	914,075	3,000	91,563	135,020	.....	200
$25,083	$275,105	.....	.....	.....	.....	$116,099	$700	$21,331	$36,005	.....	201
51,552	28,660	.....	.....	.....	1,531	175,000	19,930	317,450	47,667	1,600	202
$36,915	$12,195	.....	.....	.....	$380	$25,000	$7,280	$84,623	$29,164	$1,600	203
.....	719,664	.....	.....	.....	.....	150,000	.....	.....	.....	.....	204
.....	$110,918	.....	.....	.....	.....	$30,000	.....	.....	.....	.....	205
.....	.....	34,125	.....	.....	.....	.....	.....	.....	.....	.....	206
.....	.....	$23,887	.....	.....	.....	.....	.....	.....	.....	.....	207
.....	8,053,311	1,755,954	4,438,883	457,553	763	.....	339,423	323,475	.....	.....	208
.....	$2,176,211	$444,173	$844,294	$135,288	$407	.....	$155,569	$168,190	.....	.....	209
.....	10,000	12,960	609,141	.....	.....	.....	.....	40	.....	.....	210
.....	$8,000	$9,082	$108,332	.....	.....	.....	.....	$20	.....	.....	211
.....	142,058	.....	.....	.....	.....	278,375	.....	.....	.....	.....	212
.....	$138,141	.....	.....	.....	.....	$97,131	.....	.....	.....	.....	213
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	214
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	215
.....	75,765	.....	110,093	.....	34,183	825,070	24,790	600	2,750	5,009	216
.....	$7,534	.....	$33,060	.....	$16,986	$243,704	$15,814	$240	$1,100	$1,880	217
.....	6,004,325	52,557	.....	.....	1,103	.....	.....	.....	.....	.....	218
.....	$1,878,835	$24,088	.....	.....	$582	.....	.....	.....	.....	.....	219
.....	1,708,237	.....	.....	.....	480	.....	314	72,000	.....	.....	220
.....	$528,885	.....	.....	.....	$320	.....	$331	$13,280	.....	.....	221
.....	1,639,745	.....	1,650	.....	859	35,788	.....	100	.....	.....	222
.....	$258,378	.....	$530	.....	$572	$7,299	.....	$45	.....	.....	223
.....	437,900	.....	.....	.....	.....	.....	.....	.....	.....	.....	224
.....	$57,520	.....	.....	.....	.....	.....	.....	.....	.....	.....	225
57,500	6,665,804	.....	3,325	.....	10,721	.....	20,319	3,533	23,172	346	226
$23,000	$991,634	.....	$1,416	.....	$10,396	.....	$8,054	$2,000	$6,157	$103	227
.....	2,291,495	.....	.....	.....	.....	.....	.....	.....	2,250	.....	228
.....	$404,727	.....	.....	.....	.....	.....	.....	.....	$980	.....	229
7,042	.....	.....	.....	.....	.....	.....	1,005	.....	43,606	.....	230
$3,086	.....	.....	.....	.....	.....	.....	$1,512	.....	$130,190	.....	231
.....	5,200	.....	.....	.....	.....	.....	.....	.....	.....	.....	232
.....	$4,400	.....	.....	.....	.....	.....	.....	.....	.....	.....	233
.....	$663,174	.....	.....	.....	.....	.....	.....	.....	.....	.....	234
.....	2,650	.....	.....	.....	.....	.....	.....	.....	.....	.....	235
.....	$1,265	.....	.....	.....	.....	.....	.....	.....	.....	.....	236
.....	543	.....	.....	.....	.....	.....	.....	.....	.....	.....	237
.....	$380	.....	.....	.....	.....	.....	.....	.....	.....	.....	238
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	239
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	240
.....	.....	.....	.....	.....	.....	.....	38	.....	.....	.....	241
.....	.....	.....	.....	.....	.....	.....	$50	.....	.....	.....	242
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	243
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	244
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	245
500	26,182,718	579,528	120,540	.....	17,934	19,811	95,445	39,008	87,687	5,813	246
$300	$1,444,560	$258,419	$52,784	.....	$10,225	$12,126	$50,410	$20,013	$46,992	$3,056	247
.....	389,530	.....	.....	.....	.....	.....	.....	.....	250,000	.....	248
.....	$148,048	.....	.....	.....	.....	.....	.....	.....	$157,737	.....	249
.....	10,957,382	1,187,639	.....	.....	.....	.....	9,950	977	6,770	.....	250
.....	$1,689,146	$684,011	.....	.....	.....	.....	$1,375	$487	$4,062	.....	251
.....	15,917	.....	.....	.....	.....	.....	.....	.....	.....	.....	252
.....	$19,133	.....	.....	.....	.....	.....	.....	.....	.....	.....	253
.....	2,355,364	.....	827,902	.....	.....	.....	.....	.....	.....	.....	254
.....	$362,169	.....	$92,155	.....	.....	.....	.....	.....	.....	.....	255
9 300	59,542	.....	168,653	3,000	4,980	16,700	22,125	87,873	49,880	1,500	256
$4,050	$24,216	.....	$67,016	$1,200	$2,125	$8,470	$8,998	$17,872	$23,769	$750	257
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	258
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	259

[1] Includes establishments distributed as follows: Delaware, 2; Idaho, 1; Kansas, 1; North Dakota, 1; South Carolina, 1; Wyoming, 1.

TABLE 31.—WOOLEN GOODS:

		New Hampshire.	New Jersey.	New York.	North Carolina.	Ohio.
	Products—Continued.					
	Total value—Continued.					
	Partly manufactured products for sale—Continued.					
260	Waste, pounds	175,681	.....	20,000	.....	7,553
261	Value	$12,187	.....	$200	.....	$718
262	Shoddy, pounds	.....	.....	$150	.....	.....
263	Value	.....	.....	$75	.....	.....
264	Flocks, pounds	15,714	.....	.....	.....	2,400
265	Value	$880	.....	.....	.....	$240
	Hosiery and knit goods—					
	Hose and half hose—					
	Woolen—					
266	Half hose, dozens	.....	.....	.....	.....	.....
267	Value	.....	.....	.....	.....	.....
268	Hose, dozens	.....	.....	.....	.....	25
269	Value	.....	.....	.....	.....	$90
	Merino or mixed—					
270	Half hose, dozens	.....	.....	.....	.....	.....
271	Value	.....	.....	.....	.....	.....
	Cotton—					
272	Hose, dozens	.....	.....	.....	.....	.....
273	Value	.....	.....	.....	.....	.....
274	Leggins and gaiters, dozens	.....	.....	.....	.....	.....
275	Value	.....	.....	.....	.....	.....
276	Gloves and mittens, dozens	.....	.....	.....	.....	.....
277	Value	.....	.....	.....	.....	.....
278	Eiderdown shawls, dozens	.....	.....	.....	.....	.....
279	Value	.....	.....	.....	.....	.....
280	Boot and shoe linings, square yards	.....	.....	.....	.....	.....
281	Value	.....	.....	.....	.....	.....
282	Jersey cloth and stockinette, square yards	.....	.....	.....	.....	.....
283	Value	.....	.....	.....	.....	.....
284	All other products	$120,065	$1,832	$11,516	.....	$52,830
285	Amount received for contract work	$1,060	$2,340	$1,730	$616	$2,541
	Comparison of products:					
286	Number of establishments reporting for both years	39	13	48	16	32
287	Value for census year	$7,431,699	$4,755,393	$4,260,559	$289,506	$1,225,970
288	Value for preceding business year	$6,067,605	$4,513,753	$3,956,999	$302,567	$1,176,666
	Power:					
289	Number of establishments reporting	40	13	64	16	35
290	Total horsepower	10,331	5,128	8,517	608	1,835
	Owned—					
	Engines—					
	Steam—					
291	Number	32	25	49	6	33
292	Horsepower	3,535	3,948	4,133	305	1,496
	Gas or gasoline—					
293	Number	.....	.....	2	.....	1
294	Horsepower	.....	.....	36	.....	12
	Water wheels—					
295	Number	82	10	71	16	15
296	Horsepower	6,469	905	4,101	253	275
	Electric motors—					
297	Number	7	.....	4	.....	2
298	Horsepower	225	.....	166	.....	52
	Other power—					
299	Number	1	.....	.....	.....	.....
300	Horsepower	2	.....	.....	.....	.....
	Rented—					
301	Electric, horsepower	50	.....	4	50	.....
302	Other kind, horsepower	50	275	77	.....	.....
303	Furnished to other establishments, horsepower	.....	.....	.....	.....	5
	Establishments classified by number of persons employed, not including proprietors and firm members:					
304	Total number of establishments	43	13	65	16	35
305	No employees	2	1	15	3	1
306	Under 5	1	1	7	6	13
307	5 to 20	4	.....	13	3	7
308	21 to 50	2	.....	10	1	7
309	51 to 100	13	1	5	3	6
310	101 to 250	14	4	9	.....	1
311	251 to 500	5	4	5	.....	.....
312	501 to 1,000	1	2	1	.....	.....
313	Over 1,000	1	.....	.....	.....	.....

BY STATES, 1900—Continued.

Oregon.	Pennsylvania.	Rhode Island.	Tennessee.	Texas.	Utah.	Vermont.	Virginia.	West Virginia.	Wisconsin.	All other states.[1]	
300	71,951	.....	500	.....	.....	16,225	1,956	.....	.....	.....	260
$105	$3,442	.....	$150	.....	.....	$677	$265	.....	.....	.....	261
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	262
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	263
.....	33,820	.....	.....	.....	.....	.....	.....	.....	.....	.....	264
.....	$1,325	.....	.....	.....	.....	.....	.....	.....	.....	.....	265
.....	3,378	.....	.....	.....	.....	.....	.....	.....	.....	.....	266
.....	$11,462	.....	.....	.....	.....	.....	.....	.....	.....	.....	267
.....	593	.....	.....	.....	.....	.....	.....	.....	130	.....	268
.....	$2,180	.....	.....	.....	.....	.....	.....	.....	$120	.....	269
.....	852	.....	.....	.....	.....	.....	.....	.....	.....	.....	270
.....	$1,806	.....	.....	.....	.....	.....	.....	.....	.....	.....	271
.....	80	.....	.....	.....	.....	.....	.....	.....	.....	.....	272
.....	$180	.....	.....	.....	.....	.....	.....	.....	.....	.....	273
.....	207	.....	.....	.....	.....	.....	.....	.....	.....	.....	274
.....	$1,656	.....	.....	.....	.....	.....	.....	.....	.....	.....	275
.....	1,238	.....	.....	.....	.....	.....	.....	.....	.....	.....	276
.....	$4,641	.....	.....	.....	.....	.....	.....	.....	.....	.....	277
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	278
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	279
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	280
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	281
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	282
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	283
$635	$475,579	$160	$100	$34,267	$1,074	.....	$2,881	$1,350	.....	$24,740	284
.....	$371,997	$80,269	$2,664	.....	.....	.....	$180	$30	$12,190	.....	285
10	156	22	45	2	5	23	23	28	29	6	286
$867,224	$23,378,562	$5,263,938	$1,471,743	$35,467	$216,433	$2,572,646	$563,124	$378,786	$1,295,817	$789,331	287
$765,973	$19,174,089	$3 955,863	$1,464,622	$81,701	$213,595	$2,399,009	$461,243	$347,536	$1,207,142	$761,816	288
10	192	26	50	3	6	23	28	33	32	7	289
1,113	20,718	5,883	2,712	208	477	4,557	1,017	1,158	2,076	590	290
4	167	37	21	3	4	15	12	19	20	6	291
157	17,986	4,085	2,084	208	162	1,810	437	921	867	390	292
.....	1	1	1	.....	.....	.....	1	1	.....	.....	293
.....	15	36	6	.....	.....	.....	8	6	.....	.....	294
12	73	46	32	.....	8	32	26	21	26	7	295
956	1,653	1,692	564	.....	315	2,699	492	191	1,201	190	296
.....	5	2	1	.....	.....	1	2	1	.....	1	297
.....	167	20	20	.....	.....	48	80	40	.....	10	298
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	299
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	300
.....	.....	5	.....	.....	.....	.....	.....	.....	.....	.....	301
.....	897	45	38	.....	.....	.....	.....	.....	8	.....	302
.....	.....	31	.....	.....	.....	.....	.....	.....	.....	.....	303
11	193	26	51	3	6	23	28	33	32	7	304
1	16	.....	17	1	.....	6	1	7	7	.....	305
1	28	.....	16	.....	.....	2	7	11	9	2	306
.....	32	5	5	.....	3	.....	12	8	6	1	307
3	47	3	5	1	2	2	6	4	1	.....	308
4	29	3	3	.....	.....	7	1	2	5	1	309
1	26	11	4	1	1	5	1	1	4	3	310
1	10	3	1	.....	.....	.....	.....	.....	.....	.....	311
.....	4	1	.....	.....	.....	1	.....	.....	.....	.....	312
.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	313

[1] Includes establishments distributed as follows: Delaware, 2; Idaho, 1; Kansas, 1; North Dakota, 1; South Carolina, 1; Wyoming, 1.

TABLE 32.—WORSTED GOODS: BY STATES, 1900.

	United States.	Connecticut.	Maine.	Massachusetts.	New Jersey.	New York.	Pennsylvania.	Rhode Island.	All other states.[1]
Number of establishments	186	10	3	45	11	7	51	51	8
Character of organization:									
Individual	43			10	3		15	13	1
Firm and limited partnership	60	1		12	1	4	29	11	
Incorporated company	83	9	3	23	1	3	7	27	7
Capital:									
Total	$132,168,110	$5,054,659	$1,486,635	$45,790,300	$12,080,721	$8,809,390	$19,396,558	$34,949,769	$4,600,078
Land	$6,731,982	$266,900	$17,500	$2,988,592	$171,902	$515,170	$417,832	$2,174,879	$179,207
Buildings	$13,279,427	$492,208	$110,081	$4,539,224	$1,608,247	$802,700	$1,609,471	$3,799,161	$318,335
Machinery, tools, and implements	$27,026,759	$849,305	$250,489	$8,585,662	$2,643,417	$1,868,341	$5,035,186	$7,098,313	$696,046
Cash and sundries	$85,129,942	$3,446,246	$1,108,565	$29,676,822	$7,657,155	$5,623,179	$12,334,069	$21,877,416	$3,406,490
Proprietors and firm members	127	1	3	27	13	8	35	38	2
Salaried officials, clerks, etc.:									
Total number	1,369	56	27	503	112	134	188	322	27
Total salaries	$2,342,218	$121,783	$26,782	$796,250	$197,984	$267,367	$277,081	$593,869	$61,102
Officers of corporations—									
Number	117	14	2	35	7	5	11	31	12
Salaries	$440,492	$41,200	$6,000	$117,004	$27,300	$36,095	$34,275	$139,218	$39,400
General superintendents, managers, clerks, and salesmen—									
Total number	1,252	42	25	468	105	129	177	291	15
Total salaries	$1,901,726	$80,583	$20,782	$679,246	$170,684	$231,272	$242,806	$454,651	$21,702
Men—									
Number	1,130	41	19	406	104	123	163	262	12
Salaries	$1,837,907	$79,833	$18,598	$646,037	$170,320	$227,695	$236,635	$438,267	$20,522
Women—									
Number	122	1	6	62	1	6	14	29	3
Salaries	$63,819	$750	$2,184	$33,209	$364	$3,577	$6,171	$16,384	$1,180
Wage-earners, including pieceworkers, and total wages:									
Greatest number employed at any one time during the year	64,036	2,434	955	21,035	4,907	4,028	11,335	16,794	2,548
Least number employed at any one time during the year	49,848	1,905	785	16,414	2,967	3,276	8,852	13,458	2,191
Average number	57,008	2,198	875	18,867	3,910	3,726	10,201	14,896	2,335
Wages	$20,092,758	$846,901	$305,363	$7,055,585	$1,097,197	$1,201,228	$3,337,491	$5,537,169	$711,804
Men, 16 years and over—									
Average number	25,595	1,379	364	9,380	1,247	1,613	3,776	7,170	666
Wages	$11,300,071	$609,947	$154,958	$4,177,429	$513,670	$645,539	$1,708,640	$3,200,452	$289,436
Women, 16 years and over—									
Average number	25,829	661	420	8,410	2,207	1,737	4,596	6,342	1,456
Wages	$7,831,109	$209,410	$131,809	$2,654,009	$520,486	$503,777	$1,309,610	$2,104,585	$397,423
Children, under 16 years—									
Average number	5,584	158	91	1,077	456	376	1,829	1,384	213
Wages	$961,558	$27,544	$18,596	$224,147	$63,041	$51,912	$319,241	$232,132	$24,945
Average number of wage-earners, including pieceworkers, employed during each month:									
Men, 16 years and over—									
January	24,947	1,350	339	9,944	967	1,581	3,584	6,574	608
February	24,292	1,259	344	9 041	1,043	1,622	3,633	6,726	624
March	24,876	1,284	345	9,258	1,087	1,645	3,647	6,973	637
April	25,299	1,348	354	9,338	1,121	1,662	3,665	7,179	632
May	25,389	1,406	360	9,168	1,149	1,601	3,812	7,265	628
June	25,047	1,343	365	9,185	1,180	1,523	3,811	6,987	653
July	25,161	1,396	367	9,100	1,158	1,618	3,706	7,143	679
August	25,616	1,397	371	9,180	1,319	1,595	3,754	7,305	695
September	26,022	1,409	378	9,343	1,396	1,595	3,838	7,361	702
October	26,719	1,441	384	9,760	1,471	1,642	3,905	7,401	715
November	26,728	1,440	371	9,516	1,517	1,658	3,958	7,557	711
December	27,044	1,185	390	9,727	1,556	1,616	3,998	7,569	703
Women, 16 years and over—									
January	24,100	653	393	7,921	1,809	1,746	4,239	5,946	1,393
February	24,578	629	395	8,089	1,825	1,769	4,378	6,087	1,406
March	24,947	611	403	8,179	1,918	1,778	4,380	6,236	1,442
April	25,322	654	404	8,439	1,917	1,756	4,423	6,322	1,407
May	25,691	665	408	8,477	2,020	1,697	4,668	6,347	1,409
June	25,675	649	414	8,588	2,072	1,618	4,672	6,232	1,430
July	25,493	645	423	8,340	2,186	1,680	4,557	6,211	1,451
August	25,839	649	418	8,269	2,327	1,686	4,623	6,373	1,494
September	26,072	689	428	8,420	2,423	1,693	4,605	6,309	1,505
October	26,882	686	445	8,616	2,549	1,777	4,814	6,489	1,506
November	27,596	704	457	8,758	2,698	1,823	4,886	6,753	1,517
December	27,753	704	455	8,820	2,737	1,824	4,906	6,793	1,514
Children, under 16 years—									
January	5,323	156	83	1,017	396	368	1,743	1,358	202
February	5,477	151	87	1,046	413	365	1,830	1,381	204
March	5,429	151	85	1,059	425	371	1,768	1,366	204
April	5,483	152	86	1,071	426	377	1,785	1,380	206
May	5,567	162	88	1,072	409	362	1,866	1,399	209
June	5,503	152	93	1,049	440	346	1,856	1,353	214
July	5,553	154	93	1,033	466	376	1,802	1,410	219
August	5,577	153	92	1,043	471	375	1,836	1,390	217
September	5,700	160	97	1,076	502	407	1,855	1,381	222
October	5,721	168	93	1,126	495	390	1,861	1,369	219
November	5,829	165	96	1,148	523	388	1,883	1,402	224
December	5,846	172	95	1,182	511	381	1,859	1,424	219
Skilled operatives, average number:									
Spinners—									
Men, 16 years and over	1,995	64	8	482	238	248	543	373	39
Women, 16 years and over	4,852	52	90	1,152	306	447	1,773	937	95
Children, under 16 years	1,580	15	28	298	112	158	652	287	30
Weavers—									
Men, 16 years and over	7,426	693	83	2,178	271	486	788	2,883	44
Women, 16 years and over	6,194	66	28	2,218	897	359	625	1,120	881
Children, under 16 years	62					14	5	13	
Finishers—									
Men, 16 years and over	2,789	128	31	1,411	71	251	319	568	10
Women, 16 years and over	2,932	178	60	1,199	22	255	349	869	
Children, under 16 years	78	1	7	39			6	25	
Machinery:									
Sets of woolen cards	685	72	5	181	29	24	128	246	
Combing machines, number	1,194	8	14	358	121	64	318	270	41
Of American manufacture	214			103	6	16	29	50	10
Of foreign manufacture	980	8	14	255	115	48	289	220	31

[1] Includes states having less than 3 establishments in order that the operations of individual establishments may not be disclosed. These establishments are distributed as follows: Kentucky, 1; New Hampshire, 2; Ohio, 1; Vermont, 1; West Virginia, 1; Wisconsin, 2.

[2] Includes items as follows: Cotton upholstering plush, $93,000; mohair matchings, $14,127; waste, $10,293; all-cotton goods, $50,930; worsted and cotton twists, $19,748.

TABLE 32.—WORSTED GOODS: BY STATES, 1900—Continued.

	United States.	Connecticut.	Maine.	Massachusetts.	New Jersey.	New York.	Pennsylvania.	Rhode Island.	All other states.[1]
Machinery—Continued.									
Spindles, number	1,371,026	17,444	9,300	429,526	107,884	89,149	250,354	403,017	34,352
Spinning—									
Woolen	133,504	25,460	.....	33,674	4,110	9,968	16,374	43,888	.....
Worsted	842,730	12,214	6,500	263,594	78,888	53,351	175,566	222,182	30,432
Cotton	91,152	.....	.....	50,032	.....	.....	.....	41,120	.....
Doubling—									
Woolen	16,522	3,250	.....	2,524	.....	3,579	996	6,193	.....
Worsted	282,914	6,540	2,800	79,654	24,856	22,248	57,118	85,478	3,920
Cotton	4,204	.....	.....	48	.....	.....	.....	4,156	.....
Looms on woolen or worsted goods, number	26,372	834	199	9,584	1,394	1,515	2,619	6,589	3,638
Broad, 50 inches or over, reed space—									
On woolen goods	2,240	88	.....	424	150	18	320	86	1,154
On worsted goods	14,699	700	162	4,469	1,171	1,003	1,718	4,811	632
Narrow, under 50 inches, reed space—									
On woolen goods	950	10	.....	.....	70	7	209	654	.....
On worsted goods	8,481	35	37	4,691	.....	487	372	1,007	1,852
Hand—									
On woolen or worsted goods	2	1	.....	.....	.....	.....	.....	1	.....
Braiders	2,830	.....	.....	500	.....	.....	630	1,700	.....
Miscellaneous expenses:									
Total	$6,767,611	$310,267	$190,380	$1,681,861	$527,527	$241,410	$1,686,689	$1,833,985	$295,492
Rent of works	$286,920	$10,016	$500	$46,539	$7,400	$1,832	$116,023	$104,610	.....
Taxes, not including internal revenue	$380,210	$19,829	$1,117	$186,366	$16,611	$20,638	$20,719	$92,150	$22,750
Rent of offices, insurance, interest, and all sundry expenses not hitherto included	$5,121,974	$273,235	$188,763	$1,362,930	$459,165	$218,940	$1,133,745	$1,335,015	$150,181
Contract work	$978,507	$7,187	.....	$86,026	$44,351	.....	$416,172	$302,210	$122,561
Materials used:									
Total cost	$77,075,222	$2,971,926	$1,102,307	$25,315,707	$4,547,694	$3,406,918	$14,737,134	$21,490,592	$3,502,944
Wool—									
Foreign, in condition purchased, pounds	57,263,393	776,154	711,000	24,850,427	4,734,448	504,757	15,331,105	9,504,898	850,604
Cost	$15,159,048	$266,400	$142,200	$6,511,450	$1,411,072	$158,035	$3,619,895	$2,779,182	$270,814
Domestic, in condition purchased, pounds	122,714,543	2,400,394	268,500	39,012,421	8,957,098	10,338,442	20,390,877	33,459,274	7,887,537
Cost	$29,147,093	$643,239	$61,755	$9,106,578	$1,951,017	$2,163,772	$6,575,285	$6,771,448	$1,873,969
Foreign and domestic, etc., scoured, pounds	103,338,616	1,744,604	658,800	35,231,431	6,113,358	5,209,083	29,552,613	20,006,151	4,822,576
Animal hair and fur—									
Camel, alpaca, and vicuna hair, pounds	1,742,573	.....	129,500	1,562,491	.....	.....	50,000	582	.....
Cost	$391,332	.....	$49,210	$329,040	.....	.....	$12,500	$582	.....
Mohair, pounds	1,905,967	.....	858,000	256,347	.....	.....	10,102	781,518	.....
Cost	$972,207	.....	$265,980	$117,991	.....	.....	$1,850	$586,386	.....
Buffalo, cow, and other animal hair and fur, pounds	855,898	.....	.....	.....	.....	.....	855,898	.....	.....
Cost	$79,960	.....	.....	.....	.....	.....	$79,960	.....	.....
Cotton, bales	12,079	5	.....	4,425	29	1	1,112	6,507	.....
Pounds	5,276,751	2,500	.....	2,562,632	14,965	508	223,364	2,472,782	.....
Cost	$524,515	$375	.....	$250,878	$957	$37	$31,157	$241,111	.....
Materials not made in mill—									
Shoddy, pounds	1,807,827	116,292	.....	643,563	16,093	14,817	28,129	988,933	.....
Cost	$303,644	$17,555	.....	$93,891	$3,038	$3,253	$4,640	$181,267	.....
Wool waste and noils, pounds	1,885,867	157,832	.....	184,747	265,000	.....	92,939	1,185,349	.....
Cost	$558,494	$66,098	.....	$55,471	$104,997	.....	$25,023	$306,905	.....
Camel, alpaca, and vicuna noils, pounds	55,679	.....	.....	3,238	.....	.....	52,441	.....	.....
Cost	$12,856	.....	.....	$848	.....	.....	$12,008	.....	.....
Tops, pounds	5,260,775	58,493	.....	1,490,776	532,958	.....	543,353	2,620,226	14,969
Cost	$2,701,582	$34,580	.....	$705,605	$300,164	.....	$291,944	$1,361,520	$7,769
Yarns not made in mill—									
Woolen, pounds	2,847,091	10,301	95,000	477,831	282,500	.....	969,523	991,837	20,099
Cost	$1,402,189	$6,592	$45,305	$280,328	$169,100	.....	$372,045	$516,863	$11,956
Worsted, pounds	18,896,863	1,737,214	584,172	4,870,028	258,860	380,514	2,940,497	7,296,627	828,951
Cost	$14,704,172	$1,506,184	$381,451	$4,257,607	$174,401	$282,263	$2,130,476	$5,378,892	$592,898
Merino, pounds	419,434	.....	.....	172,488	500	.....	130,756	115,690	.....
Cost	$147,891	.....	.....	$34,554	$200	.....	$59,561	$53,576	.....
Cotton, pounds	13,420,590	572,875	69,170	2,640,290	338,906	965,014	2,685,332	3,973,373	2,175,540
Cost	$3,032,039	$114,407	$22,583	$842,712	$62,920	$214,838	$561,249	$895,521	$317,809
Silk, pounds	26,418	134	.....	16	.....	1,350	5,845	18,688	385
Cost	$144,971	$1,332	.....	$96	.....	$3,712	$56,243	$82,046	$1,542
Spun silk, pounds	47,533	219	.....	17,621	1,806	15	2,729	25,143	.....
Cost	$166,672	$854	.....	$63,922	$4,965	$101	$8,777	$88,053	.....
Linen, pounds	1,314	.....	.....	284	.....	.....	.....	1,030	.....
Cost	$1,052	.....	.....	$229	.....	.....	.....	$823	.....
All other materials which are components of the product	$74,535	.....	.....	.....	$1,317	$54,073	$13,429	$5,716	.....
Soap, pounds	13,486,089	734,431	261,011	5,408,939	577,905	1,016,293	2,361,358	2,845,308	280,844
Cost	$485,397	$22,330	$10,006	$156,422	$23,390	$39,477	$101,340	$121,958	$10,474
Oil, for preparing wool for cards or combs, gallons	488,703	21,491	5,895	144,211	31,393	14,230	149,838	112,939	8,676
Cost	$221,981	$8,199	$3,046	$63,130	$14,383	$6,980	$60,997	$59,874	$5,372
Chemicals and dyestuffs	$2,627,140	$121,729	$25,896	$869,968	$91,879	$235,681	$190,253	$877,948	$213,786
Fuel	$1,226,938	$54,894	$29,418	$449,281	$62,571	$65,628	$161,151	$348,314	$55,681
Rent of power and heat	$79,338	.....	$10,450	$34,368	$4,204	.....	$22,855	$7,461	.....
Mill supplies	$564,150	$18,859	$6,500	$182,460	$24,892	$28,875	$108,710	$185,661	$8,193
All other materials	$1,818,608	$54,788	$27,828	$761,558	$100,635	$113,721	$126,399	$516,156	$117,523
Freight	$527,418	$33,511	$20,679	$147,320	$41,562	$36,472	$109,387	$125,329	$15,158
Cotton yarn made in mill for use therein, pounds	3,237,131	.....	.....	1,956,949	.....	.....	.....	1,280,182	.....
Products:									
Total value	$120,314,344	$4,539,814	$1,779,552	$40,557,363	$6,823,721	$5,958,259	$22,109,392	$33,341,329	$5,204,914
All-wool woven goods, whether woolen or worsted:									
Wool cloths, doeskins, cassimeres, cheviots, tweeds, indigo flannels, and broadcloths, for men's wear, square yards	3,582,788	719,351	.....	2,094,678	33,000	58,462	9,000	658,797	9,500
Value	$2,508,918	$601,636	.....	$1,396,451	$9,530	$60,072	$9,000	$413,229	$19,000
Worsted coatings, serges, and suitings, for men's wear, square yards	50,204,572	2,180,270	663,508	21,180,544	770,128	3,039,235	3,831,644	16,629,693	1,909,550
Value	$39,552,773	$2,523,127	$364,074	$17,413,922	$539,090	$2,527,599	$2,619,437	$12,584,943	$980,581
Woolen overcoatings, clonkings, kerseys, etc., for men's or women's wear, square yards	1,718,008	91,257	.....	1,365,790	.....	64,653	.....	196,308	.....
Value	$1,705,645	$101,751	.....	$1,388,555	.....	$83,869	.....	$131,470	.....
Worsted overcoatings and clonkings, for men's or women's wear, square yards	16,690	.....	.....	.....	.....	.....	.....	16,690	.....
Value	$7,778	.....	.....	.....	.....	.....	.....	$7,778	.....

[1] Includes states having less than 3 establishments in order that the operations of individual establishments may not be disclosed. These establishments are distributed as follows: Kentucky, 1; New Hampshire, 2; Ohio, 1; Vermont, 1; West Virginia, 1; Wisconsin, 2.

TABLE 32.—WORSTED GOODS: BY STATES, 1900—Continued.

	United States.	Connecticut.	Maine.	Massachusetts.	New Jersey.	New York.	Pennsylvania.	Rhode Island.	All other states.[1]
Products—Continued.									
Total value—Continued.									
All-wool woven goods, whether woolen or worsted—Continued.									
Wool dress goods, suckings, tricots, ladies cloth, broadcloth, and other all-wool goods, for women's wear, and opera and similar flannels, square yards	3,320,974	.....	.....	1,668,475	1,609,356	.....	504,258	.....	138,885
Value	$1,598,459	.....	.....	$580,940	$773,991	.....	$168,528	.....	$75,000
Worsted dress goods, cassimeres, serges, and other worsted goods, for women's wear, and buntings, square yards	54,480,569	.....	956,653	13,026,286	4,368,475	523,529	3,922,075	9,835,726	21,847,825
Value	$14,994,513	.....	$539,411	$4,038,468	$1,310,543	$242,070	$1,970,130	$4,050,351	$2,842,940
Blankets, square yards	187,530	.....	.....	187,530	.....	.....	.....	.....	.....
Value	$42,194	.....	.....	$42,194	.....	.....	.....	.....	.....
Woven shawls, square yards	87,902	.....	.....	.....	.....	.....	.....	87,902	.....
Value	$72,248	.....	.....	.....	.....	.....	.....	$72,248	.....
Union or cotton mixed woven goods:									
Unions, tweeds, cheviots, cassimeres, or other goods for men's wear, square yards	1,179,014	.....	.....	.....	.....	83,125	1,016,920	78,969	.....
Value	$880,441	.....	.....	.....	.....	$60,375	$766,743	$53,323	.....
Overcoatings and cloakings, square yards	411,902	.....	.....	.....	.....	.....	250,540	161,362	.....
Value	$353,864	.....	.....	.....	.....	.....	$156,589	$197,275	.....
Sackings, tricots, and dress goods for women's wear, and opera and similar flannels, square yards	1,071,204	.....	.....	169,234	.....	.....	901,970	.....	.....
Value	$328,243	.....	.....	$55,061	.....	.....	$273,182	.....	.....
Goods woven on cotton warps, with weft partly or wholly of wool, worsted, or hair (or cotton weft with warp of wool):									
Wool-filling cassimeres, doeskins, jeans, tweeds, coatings, suitings, and other cotton-warp goods, for men's wear, not specified below, square yards	2,073,990	471,825	.....	450,000	.....	716,334	109,166	326,665	.....
Value	$1,356,735	$429,255	.....	$330,000	.....	$342,378	$109,166	$145,936	.....
Worsted-filling cassimeres, doeskins, jeans, tweeds, coatings, suitings, and other cotton-warp goods, for men's wear, not specified below, square yards	10,540,927	260,470	.....	2,084,766	628,268	.....	621,131	6,738,436	207,856
Value	$6,401,491	$144,726	.....	$1,083,222	$157,960	.....	$323,010	$4,585,717	$106,856
Worsted-filling dress goods, delaines, cassimeres, serges, mohairs, alpacas, and other stuffs, for women's wear, square yards	39,611,517	.....	.....	21,794,250	633,429	4,823,470	3,577,092	8,783,276	.....
Value	$8,466,106	.....	.....	$4,128,159	$106,037	$1,651,246	$984,279	$1,596,385	.....
Wool-filling dress goods and repellents, square yards	347,882	.....	.....	347,882	.....	.....	.....	.....	.....
Value	$155,042	.....	.....	$155,042	.....	.....	.....	.....	.....
Linings, Italian cloths, and lastings, square yards	6,987,330	.....	483,651	6,309,534	.....	69,584	124,561	.....	.....
Value	$1,953,139	.....	$172,326	$1,699,430	.....	$26,577	$54,806	.....	.....
Upholstery goods and sundries—									
Woolen and worsted upholstery goods, square yards	43,614	7,314	.....	.....	.....	.....	.....	36,300	.....
Value	$62,130	$5,130	.....	.....	.....	.....	.....	$57,000	.....
Other upholstery goods	$454,995	.....	.....	$39,025	.....	.....	$90,970	$325,000	.....
Partly manufactured products for sale—									
Woolen yarn—all wool, pounds	3,556,375	63,671	.....	434,192	79,255	.....	2,979,257	.....	.....
Value	$1,052,508	$24,194	.....	$162,982	$39,627	.....	$825,705	.....	.....
Worsted yarn and tops, pounds	41,059,360	678,726	358,500	8,828,568	4,365,683	980,510	16,424,117	8,789,306	1,233,950
Value	$29,358,056	$577,010	$304,629	$4,990,268	$3,395,322	$701,166	$11,733,065	$6,789,859	$866,737
Woolen or worsted yarn, union or merino, cotton mixed, pounds	2,537,303	.....	.....	878,506	.....	.....	1,337,292	321,505	.....
Value	$1,903,639	.....	.....	$746,808	.....	.....	$1,002,022	$154,809	.....
Mohair and similar yarn, pounds	788,166	6,675	260,000	245,616	.....	.....	.....	275,875	.....
Value	$705,211	$6,225	$316,800	$102,899	.....	.....	.....	$279,287	.....
Cotton yarn, pounds	76,013	.....	.....	.....	.....	.....	.....	76,013	.....
Value	$19,760	.....	.....	.....	.....	.....	.....	$19,760	.....
Noils, pounds	12,052,814	55,964	292,750	4,879,286	708,793	526,925	2,984,381	2,099,777	504,938
Value	$3,335,251	$11,937	$64,405	$1,281,606	$229,424	$165,567	$793,279	$651,720	$137,313
Waste, pounds	7,184,821	125,040	21,000	1,185,361	692,392	261,804	653,581	3,292,631	953,012
Value	$1,162,610	$21,698	$3,780	$221,900	$205,688	$36,700	$106,024	$410,317	$156,508
Flocks, pounds	297,628	4,926	.....	164,329	41,000	13,000	30,000	35,443	8,930
Value	$11,783	$125	.....	$5,768	$1,700	$260	$3,000	$699	$231
All other products	$1,077,474	$93,000	$14,127	$84,730	$10,293	$59,780	$50,930	$744,866	$19,748
Amount received for contract work	$793,338	.....	.....	$609,933	$44,521	.....	$69,527	$69,357	.....
Comparison of products:									
Number of establishments reporting for both years	145	10	2	34	10	5	38	39	7
Value for census year	$113,635,037	$4,539,814	$1,579,552	$38,622,603	$6,399,677	$4,501,327	$20,271,290	$32,575,860	$5,144,914
Value for preceding business year	$85,483,346	$3,466,430	$1,104,443	$29,535,477	$5,340,615	$3,705,028	$13,899,155	$24,278,180	$4,154,018
Power:									
Number of establishments reporting	185	10	3	44	11	7	51	51	8
Total horsepower	97,383	3,949	1,386	38,611	5,576	7,255	14,314	22,562	3,730
Owned—									
Engines—									
Steam, number	399	17	11	151	15	34	63	96	12
Horsepower	73,180	1,548	651	27,001	5,251	3,475	13,860	18,944	2,450
Gas or gasoline, number	4	.....	.....	1	.....	3	.....	.....	.....
Horsepower	220	.....	.....	10	.....	210	.....	.....	4
Water wheels, number	147	16	1	64	1	14	2	45	4
Horsepower	20,491	2,346	75	10,262	100	3,310	60	3,108	1,230
Electric motors, number	26	2	.....	15	.....	5	2	1	1
Horsepower	1,151	55	.....	740	.....	255	46	5	50
Other power, number	1	.....	.....	.....	.....	1	.....	.....	.....
Horsepower	5	.....	.....	.....	.....	5	.....	.....	.....
Rented—									
Electric, horsepower	1,801	.....	630	598	225	.....	348	.....	.....
Other kind, horsepower	535	.....	30	.....	.....	.....	.....	505	.....
Furnished to other establishments, horsepower	260	.....	.....	190	.....	.....	70	.....	.....

[1] Includes states having less than 3 establishments in order that the operations of individual establishments may not be disclosed. These establishments are distributed as follows: Kentucky, 1; New Hampshire, 2; Ohio, 1; Vermont, 1; West Virginia, 1; Wisconsin, 2.

TABLE 32.—WORSTED GOODS: BY STATES, 1900—Continued.

	United States.	Connecticut.	Maine.	Massachusetts.	New Jersey.	New York.	Pennsylvania.	Rhode Island.	All other states.[1]
Establishments classified by number of persons employed, not including proprietors and firm members:									
Total number of establishments	186	10	3	45	11	7	51	51	8
Under 5	1	...	...	...	...	...	...	1	...
5 to 20	10	...	...	4	...	...	3	1	2
21 to 50	17	...	...	5	1	...	7	1	...
51 to 100	42	2	2	11	4	...	11	11	1
101 to 250	53	2	...	9	3	3	14	20	2
251 to 500	28	6	...	6	1	...	8	5	2
501 to 1,000	22	...	1	6	1	2	8	5	...
Over 1,000	12	...	...	4	1	2	...	4	1

[1] Includes states having less than 3 establishments in order that the operations of individual establishments may not be disclosed. These establishments are distributed as follows: Kentucky, 1; New Hampshire, 2; Ohio, 1; Vermont, 1; West Virginia, 1; Wisconsin, 2.

TABLE 33.—CARPETS AND RUGS, OTHER THAN RAG: BY STATES, 1900.

	United States.	Massachusetts.	New Jersey.	New York.	Pennsylvania.	All other states.[1]
Number of establishments	133	8	13	12	93	7
Character of organization:						
Individual	48	1	5	...	41	1
Firm and limited partnership	49	...	2	5	42	...
Incorporated company	35	7	5	7	10	6
Miscellaneous	1	...	1	...	...	...
Capital:						
Total	$44,449,299	$9,400,829	$1,487,031	$12,870,200	$17,957,607	$2,733,632
Land	$2,641,774	$614,572	$120,015	$876,306	$936,875	$94,006
Buildings	$5,717,961	$1,403,894	$260,137	$939,963	$2,705,050	$308,917
Machinery, tools, and implements	$11,495,056	$2,010,830	$282,860	$3,086,323	$5,294,986	$820,057
Cash and sundries	$24,594,508	$5,271,533	$824,019	$7,967,608	$9,020,696	$1,510,652
Proprietors and firm members	111	1	3	3	103	1
Salaried officials, clerks, etc.:						
Total number	687	71	47	189	336	44
Total salaries	$881,398	$127,264	$73,197	$250,169	$375,483	$55,285
Officers of corporations—						
Number	52	7	9	10	17	9
Salaries	$173,931	$38,200	$39,500	$40,500	$34,868	$20,863
General superintendents, managers, clerks, etc.—						
Total number	635	64	38	179	319	35
Total salaries	$707,467	$89,064	$33,697	$209,669	$340,615	$34,422
Men—						
Number	607	62	35	172	303	35
Salaries	$693,532	$88,128	$32,215	$205,782	$332,985	$34,422
Women—						
Number	28	2	3	7	16	...
Salaries	$13,935	$936	$1,482	$3,887	$7,630	...
Wage-earners, including pieceworkers, and total wages:						
Greatest number employed at any one time during the year	30,175	4,890	1,290	9,040	13,480	1,475
Least number employed at any one time during the year	25,734	3,742	1,124	7,681	12,166	1,021
Average number	28,411	4,480	1,171	8,603	12,919	1,238
Wages	$11,121,383	$1,720,289	$379,423	$3,308,438	$5,330,643	$382,590
Men, 16 years and over—						
Average number	13,860	2,022	759	3,911	6,608	560
Wages	$6,651,180	$996,216	$283,005	$1,887,556	$3,269,567	$214,836
Women, 16 years and over—						
Average number	12,468	1,954	326	4,112	5,461	615
Wages	$4,113,142	$629,638	$84,881	$1,313,904	$1,926,024	$158,695
Children, under 16 years—						
Average number	2,083	504	86	580	850	63
Wages	$357,061	$94,435	$11,537	$106,978	$135,052	$9,059
Average number of wage-earners, including pieceworkers, employed during each month:						
Men, 16 years and over—						
January	13,828	2,075	752	3,873	6,620	508
February	13,915	2,060	746	3,903	6,659	547
March	13,865	1,970	759	3,899	6,698	539
April	13,428	1,635	732	3,896	6,613	552
May	13,783	2,043	727	3,904	6,558	551
June	13,837	2,083	724	3,944	6,540	546
July	13,923	2,114	763	3,946	6,551	549
August	13,916	2,099	783	3,949	6,530	555
September	14,018	2,125	774	3,969	6,577	573
October	14,018	2,109	782	3,967	6,602	588
November	14,100	2,123	785	3,996	6,596	600
December	13,659	1,825	777	3,691	6,755	611
Women, 16 years and over—						
January	12,285	2,058	324	3,889	5,481	533
February	12,521	2,077	325	4,002	5,516	601
March	12,498	2,003	321	4,050	5,533	591
April	12,082	1,563	314	4,030	5,477	638
May	12,331	1,859	319	4,142	5,376	635
June	12,368	1,986	323	4,081	5,410	568
July	12,197	1,987	329	4,201	5,412	568
August	12,561	2,043	334	4,200	5,389	595
September	12,604	2,088	327	4,172	5,431	586
October	12,641	2,059	329	4,171	5,421	661
November	12,792	2,115	337	4,181	5,474	685
December	12,436	1,615	332	4,162	5,608	719
Children, under 16 years—						
January	1,991	519	80	475	852	65
February	2,093	520	83	543	880	67
March	2,091	505	79	566	874	67
April	2,048	462	81	577	863	65
May	2,088	503	85	569	868	63
June	2,083	503	87	584	847	62
July	2,115	506	89	609	848	63
August	2,113	505	88	615	841	64
September	2,121	510	87	615	850	59
October	2,063	512	87	603	797	56
November	2,079	515	91	607	807	49
December	2,111	492	93	599	869	58

[1] Includes states having less than 3 establishments in order that the operations of individual establishments may not be disclosed. These establishments are distributed as follows: Alabama, 1; Colorado, 1; Connecticut, 2; Indiana, 1; South Carolina, 1; Wisconsin, 1.

TABLE 33.—CARPETS AND RUGS, OTHER THAN RAG: BY STATES, 1900—Continued.

	United States.	Massachusetts.	New Jersey.	New York.	Pennsylvania.	All other states.[1]
Skilled operatives, average number:						
Spinners—						
Men, 16 years and over	486	34	1	117	316	18
Women, 16 years and over	1,150	302	.....	216	541	91
Children, under 16 years	185	.....	.....	21	162	2
Weavers—						
Men, 16 years and over	5,836	430	393	625	4,167	221
Women, 16 years and over	4,413	701	137	1,307	2,024	274
Children, under 16 years	34	.....	7	.....	26	1
Finishers—						
Men, 16 years and over	516	92	6	136	247	35
Women, 16 years and over	1,018	161	35	375	405	42
Children, under 16 years	80	.....	.....	6	64	10
Machinery:						
Sets of woolen cards	468	66	10	275	92	25
Combing machines, number	134	17	3	50	17	17
Of American manufacture	46	29	1	11	5	.....
Of foreign manufacture	88	18	2	39	12	17
Spindles, number	209,206	50,344	3,344	89,982	42,926	22,610
Spinning—						
Woolen	63,836	10,164	752	26,724	21,416	4,780
Worsted	97,191	27,352	1,728	41,620	13,267	13,224
Cotton	6,096	1,872	.....	4,224	.....	.....
Doubling—						
Woolen	3,197	680	.....	1,944	573	.....
Worsted	36,658	9,688	864	13,874	7,626	4,606
Cotton	2,228	588	.....	1,596	44	.....
Looms on woolen or worsted goods, number	1,757	.....	26	998	733	.....
Broad, 50 inches or over, reed space—						
On woolen goods	797	.....	26	50	721	.....
On worsted goods	17	.....	.....	17	.....	.....
Narrow, under 50 inches, reed space—						
On woolen goods	602	.....	.....	602	.....	.....
On worsted goods	295	.....	.....	295	.....	.....
Hand—						
On woolen or worsted goods	46	.....	.....	34	12	.....
Looms on carpets and rugs, number	10,754	1,223	911	2,238	5,843	539
Ingrain—						
Hand	92	.....	.....	28	62	2
Power	4,354	253	31	287	3,467	316
Broad ingrain—						
Hand	1	.....	.....	.....	1	.....
Power	246	.....	.....	11	207	28
Venetian—						
Power	80	.....	.....	.....	80	.....
Tapestry brussels—						
Power	1,094	191	7	625	271	.....
Tapestry velvet—						
Power	737	26	13	432	266	.....
Body brussels—						
Power	544	333	.....	24	87	100
Wilton—						
Power	507	276	46	10	168	7
Axminster—						
Power	611	143	19	358	12	79
Moquette—						
Power	150	.....	.....	150	.....	.....
Wilton rug—						
Power	22	1	.....	18	.....	3
Tapestry rug—						
Power	3	.....	1	.....	2	.....
Smyrna rug—						
Hand	955	.....	447	123	385	.....
Power	1,358	.....	347	172	835	4
Miscellaneous expenses:						
Total	$2,751,879	$427,241	$45,610	$541,841	$1,671,015	$66,172
Rent of works	$162,657	$683	$970	$53,200	$107,624	$180
Taxes, not including internal revenue	$178,469	$77,957	$4,766	$47,608	$35,151	$12,987
Rent of offices, insurance, interest, and all sundry expenses not hitherto included	$2,096,532	$329,705	$39,874	$425,654	$1,248,594	$52,705
Contract work	$314,221	$18,896	.....	$15,379	$279,646	$300
Materials used:						
Total cost	$27,228,719	$3,989,945	$867,959	$7,681,097	$13,773,788	$915,930
Wool—						
Foreign, in condition purchased, pounds	51,761,523	13,746,907	663,452	23,297,198	11,458,910	2,595,056
Cost	$8,077,420	$2,063,995	$99,497	$3,875,638	$1,686,477	$351,813
Domestic, in condition purchased, pounds	109,811	.....	.....	.....	109,811	.....
Cost	$26,687	.....	.....	.....	$26,687	.....
Foreign and domestic, etc., scoured, pounds	37,560,231	10,096,801	420,000	17,224,476	8,189,811	1,629,143
Animal hair and fur—						
Camel, alpaca, and vicuna hair, pounds	457,476	.....	.....	.....	457,476	.....
Cost	$71,256	.....	.....	.....	$71,256	.....
Mohair, pounds	25,000	.....	.....	.....	25,000	.....
Cost	$7,250	.....	.....	.....	$7,250	.....
Buffalo, cow, and other animal hair and fur, pounds	5,707,281	.....	91,185	1,325,814	3,825,421	464,861
Cost	$471,104	.....	$11,912	$99,978	$311,325	$47,889
Cotton, bales	3,813	1,242	.....	2,571	.....	.....
Pounds	1,943,942	641,460	.....	1,302,482	.....	.....
Cost	$129,449	$36,828	.....	$92,621	.....	.....
Materials not made in mill—						
Shoddy, pounds	744,233	.....	.....	6,653	737,580	.....
Cost	$43,555	.....	.....	$410	$43,145	.....
Wool waste and noils, pounds	2,238,946	403,698	.....	1,039,591	795,057	600
Cost	$301,944	$65,000	.....	$151,173	$85,741	$30
Camel, alpaca, and vicuna noils, pounds	84,908	.....	.....	84,908	.....	.....
Cost	$3,627	.....	.....	$3,627	.....	.....
Mohair noils, pounds	1,200	.....	.....	.....	1,200	.....
Cost	$162	.....	.....	.....	$162	.....
Tops, pounds	200,000	.....	.....	.....	200,000	.....
Cost	$96,000	.....	.....	.....	$96,000	.....
Yarns not made in mill—						
Woolen, pounds	32,996,316	.....	2,036,980	1,594,801	28,029,987	1,334,548
Cost	$5,030,654	.....	$343,618	$266,998	$4,218,605	$201,433
Worsted, pounds	9,218,267	2,142,847	37,047	281,830	6,504,583	251,960
Cost	$3,544,860	$835,863	$15,501	$113,538	$2,481,729	$98,229
Merino, pounds	237,970	.....	.....	.....	229,700	8,270
Cost	$38,994	.....	.....	.....	$37,837	$1,157

[1] Includes states having less than 3 establishments in order that the operations of individual establishments may not be disclosed. These establishments are distributed as follows: Alabama, 1; Colorado, 1; Connecticut, 2; Indiana, 1; South Carolina, 1; Wisconsin, 1.

TABLE 33.—CARPETS AND RUGS, OTHER THAN RAG: BY STATES, 1900—Continued.

	United States.	Massachusetts.	New Jersey.	New York.	Pennsylvania.	All other states.[1]
Materials used—Continued.						
Total cost—Continued.						
Yarns not made in mill—Continued.						
Cotton, pounds	19,823,561	2,163,677	432,983	3,617,216	13,215,750	393,935
Cost	$2,744,928	$250,003	$67,918	$443,351	$1,939,047	$44,609
Silk, pounds	9,634				9,634	
Cost	$43,455				$43,455	
Spun silk, pounds	178,780				178,780	
Cost	$250,233				$250,233	
Linen, pounds	8,388,211	1,175,131	92,346	5,382,255	1,699,108	39,371
Cost	$1,164,826	$159,702	$13,929	$732,307	$252,310	$6,578
Jute, ramie, or other vegetable fiber, pounds	38,846,413	2,931,326	3,091,776	16,411,276	15,784,309	627,726
Cost	$2,476,029	$186,779	$203,673	$944,901	$1,101,507	$39,169
Shoddy, made in mill for use therein, pounds	125,000		125,000			
Cost	$6,125		$6,125			
All other materials which are components of the product	$199,618			$158,952	$40,666	
Soap, pounds	2,696,173	197,290	208,814	929,496	1,277,598	82,975
Cost	$90,271	$4,712	$7,221	$26,211	$49,705	$2,422
Oil, for preparing wool for cards or combs, gallons	465,731	61,844	4,659	261,591	116,137	21,500
Cost	$103,671	$19,413	$1,812	$36,684	$39,095	$6,667
Chemicals and dyestuffs	$1,151,726	$126,315	$37,856	$384,835	$550,542	$52,178
Fuel	$469,913	$97,556	$18,902	$113,466	$213,722	$26,267
Rent of power and heat	$22,881	$600		$240	$22,041	
Mill supplies	$138,181	$28,750	$3,565	$36,995	$53,510	$15,361
All other materials	$366,761	$101,799	$33,038	$103,612	$127,287	$1,025
Freight	$157,139	$12,630	$3,392	$95,560	$24,454	$21,103
Cotton yarn made in mill for use therein, pounds	1,712,421	536,374		1,176,047		
Products:						
Total value	$48,192,351	$6,966,237	$1,522,827	$15,029,218	$23,113,058	$1,561,011
All-wool woven goods, whether woolen or worsted—						
Carriage robes, square yards	28,364		28,364			
Value	$17,367		$17,367			
Goods woven on cotton warps with weft partly or wholly of wool, worsted, or hair—						
Carriage robes, square yards	667				667	
Value	$1,500				$1,500	
Upholstery goods and sundries—						
Woolen and worsted upholstery goods square yards	94,341				94,341	
Value	$44,340				$44,340	
Other upholstery goods	$405,244				$405,244	
Carpets and rugs—						
Carpets—						
Ingrain, 2-ply, square yards	36,698,292	2,295,695	97,500	2,390,698	30,469,168	1,445,231
Value	$13,222,657	$976,588	$15,840	$892,012	$10,754,090	$584,127
Ingrain, 3-ply, square yards	3,222,557			91,595	2,598,477	532,485
Value	$1,146,273			$56,411	$849,559	$240,303
Ingrain art carpets, square yards	2,328,906			128,734	2,085,326	114,846
Value	$1,007,627			$81,102	$876,474	$50,051
Tapestry Brussels, running yards of 27 inches wide	11,649,932	1,812,447	72,000	6,898,863	2,866,622	
Value	$5,520,665	$1,069,050	$30,240	$3,080,397	$1,340,978	
Body Brussels, running yards of 27 inches wide	3,581,991	2,536,261		167,773	756,348	121,609
Value	$2,979,867	$2,143,570		$113,216	$613,633	$109,448
Tapestry, velvet, running yards of 27 inches wide	5,706,754	105,665	180,000	2,448,555	2,972,534	
Value	$3,743,353	$78,296	$108,000	$1,676,920	$1,880,137	
Wilton and Wilton velvet, running yards of 27 inches wide	4,782,835	891,034	306,407	3,097,432	478,630	9,332
Value	$4,030,842	$1,259,781	$268,932	$1,978,494	$509,637	$13,998
Axminster, running yards of 27 inches wide	5,074,961	685,229	12,400	3,834,992		542,340
Value	$3,637,001	$512,355	$14,700	$2,607,707		$502,239
Moquette, running yards of 27 inches wide	1,627,410			1,627,410		
Value	$1,125,268			$1,125,268		
Rugs—						
Tapestry, square yards	18,750				18,750	
Value	$9,000				$9,000	
Wilton, square yards	339,784	164,401		75,814	96,869	2,700
Value	$545,967	$262,118		$136,007	$138,842	$9,000
Moquette and Axminster, square yards	327,598	289,698			37,900	
Value	$342,262	$297,495			$44,767	
Ingrain, square yards	393,417				294,800	98,617
Value	$168,324				$122,886	$45,438
Smyrna carpets and rugs, square yards	3,651,661		1,007,786	504,468	2,139,407	
Value	$3,680,618		$885,653	$755,927	$2,039,038	
Other rugs, square yards	5,111,173	52,000		5,056,577		2,596
Value	$2,391,434	$65,000		$2,321,959		$4,475
Felt goods—						
All other felts	$15,393		$15,393			
Partly manufactured products for sale—						
Woolen yarn, all wool, pounds	1,073,214	312,000		44,675	716,539	
Value	$252,857	$93,740		$10,447	$148,670	
Worsted yarn and tops, pounds	2,776,929	535,722	90,732	381,378	1,769,097	
Value	$1,090,036	$205,144	$30,983	$140,701	$713,208	
Woolen or worsted yarn, union or merino, cotton mixed, pounds	10,000				10,000	
Value	$4,887				$4,887	
Noils, pounds	674,188		159,316	250,667	264,205	
Value	$120,131		$26,619	$44,049	$49,463	
Waste, pounds	330,351	31,000		102,315	150,000	47,036
Value	$21,133	$3,100		$8,601	$7,500	$1,932
All other products	$2,648,205		$109,100		$2,539,105	
Amount received for contract work	$20,100				$20,100	
Comparison of products:						
Number of establishments reporting for both years	114	7	10	10	83	4
Value for census year	$46,885,929	$6,497,371	$1,493,136	$14,867,002	$22,505,237	$1,523,183
Value for preceding business year	$40,191,460	$5,117,762	$1,279,003	$13,385,231	$18,980,902	$1,428,562
Power:						
Number of establishments reporting	127	8	12	12	89	6
Total horsepower	26,932	6,000	1,056	7,845	10,537	1,494
Owned—						
Engines—						
Steam, number	155	23	14	23	87	8
Horsepower	23,091	4,690	751	6,103	10,088	1,459
Gas or gasoline, number	1					1
Horsepower	35					35
Water wheels, number	22	10	3	9		
Horsepower	3,145	1,185	300	1,660		
Electric motors, number	5	2	1	2		
Horsepower	192	125	5	62		
Rented—						
Other than electric, horsepower	469			20	449	
Furnished to other establishments, horsepower	484				484	

[1] Includes states having less than 3 establishments in order that the operations of individual establishments may not be disclosed. These establishments are distributed as follows: Alabama, 1; Colorado, 1; Connecticut, 2; Indiana, 1; South Carolina, 1; Wisconsin, 1.

TABLE 33.—CARPETS AND RUGS, OTHER THAN RAG: BY STATES, 1900—Continued.

	United States.	Massachusetts.	New Jersey.	New York.	Pennsylvania.	All other states.[1]
Establishments classified by number of persons employed, not including proprietors and firm members:						
Total number of establishments	133	8	13	12	93	7
Under 5	2	.....	.....	.....	2	.....
5 to 20	18	.....	3	1	12	2
21 to 50	33	1	4	.....	28	.....
51 to 100	30	1	3	3	21	2
101 to 250	20	1	1	1	15	2
251 to 500	19	3	2	1	11	.....
501 to 1,000	3	1	.....	.....	2	.....
Over 1,000	8	2	.....	3	2	1

[1] Includes states having less than 3 establishments in order that the operations of individual establishments may not be disclosed. These establishments are distributed as follows: Alabama, 1; Colorado, 1; Connecticut, 2; Indiana, 1; South Carolina, 1; Wisconsin, 1.

TABLE 34.—FELT GOODS: BY STATES, 1900.

	United States.	Massachusetts.	New Jersey.	New York.	Pennsylvania.	All other states.[1]
Number of establishments	36	7	4	11	3	11
Character of organization:						
Individual	7	1	2	1	2	1
Firm and limited partnership	7	1	.....	4	1	1
Incorporated company	22	5	2	6	.....	9
Capital:						
Total	$7,125,276	$1,338,640	$806,057	$2,183,050	$186,445	$2,611,084
Land	$506,601	$134,400	$55,000	$143,500	$6,150	$167,551
Buildings	$1,115,961	$229,930	$102,000	$396,534	$53,800	$333,697
Machinery, tools, and implements	$1,745,933	$324,212	$161,819	$528,401	$68,050	$663,451
Cash and sundries	$3,756,781	$650,098	$487,238	$1,114,615	$58,445	$1,446,385
Proprietors and firm members	13	1	.....	7	4	1
Salaried officials, clerks, etc.:						
Total number	136	19	8	41	6	62
Total salaries	$231,065	$41,397	$19,650	$73,130	$6,336	$90,552
Officers of corporations—						
Number	28	2	3	9	.....	14
Salaries	$92,110	$17,000	$13,900	$23,450	.....	$37,760
General superintendents, managers, clerks, etc.—						
Total number	108	17	5	32	6	48
Total salaries	$138,955	$24,397	$5,750	$49,680	$6,336	$52,792
Men—						
Number	94	15	4	27	5	43
Salaries	$133,278	$23,496	$5,400	$47,184	$6,036	$51,162
Women—						
Number	14	2	1	5	1	5
Salaries	$5,677	$901	$350	$2,496	$300	$1,630
Wage-earners, including pieceworkers, and total wages:						
Greatest number employed at any one time during the year	3,085	526	227	891	80	1,361
Least number employed at any one time during the year	2,335	346	190	740	67	992
Average number	2,688	464	206	735	75	1,208
Wages	$1,024,835	$180,795	$83,514	$297,853	$30,490	$432,183
Men, 16 years and over—						
Average number	1,957	402	180	507	74	794
Wages	$820,637	$165,861	$77,798	$228,966	$29,890	$318,122
Women, 16 years and over—						
Average number	658	47	26	197	1	387
Wages	$191,090	$12,512	$5,716	$62,379	$600	$109,883
Children, under 16 years—						
Average number	73	15	.....	31	.....	27
Wages	$13,108	$2,422	.....	$6,508	.....	$4,178
Average number of wage-earners, including pieceworkers, employed during each month:						
Men, 16 years and over—						
January	1,929	387	173	520	76	773
February	1,931	379	174	526	70	782
March	1,976	382	178	534	68	814
April	1,912	398	181	528	65	740
May	1,921	398	180	523	66	754
June	1,898	395	186	467	77	773
July	1,901	400	187	472	77	765
August	2,003	443	192	502	77	789
September	2,050	437	179	526	77	831
October	2,011	403	180	507	77	844
November	1,975	405	175	485	77	833
December	1,977	402	174	488	77	836
Women, 16 years and over—						
January	659	47	21	203	3	385
February	640	45	25	187	3	380
March	665	45	26	193	2	399
April	634	46	26	195	2	365
May	654	48	29	190	.....	387
June	663	48	29	189	.....	397
July	672	45	29	190	.....	408
August	646	48	28	198	.....	372
September	662	46	28	200	.....	388
October	669	50	26	207	.....	386
November	662	49	25	206	.....	382
December	670	48	26	207	.....	389
Children, under 16 years—						
January	69	14	.....	29	.....	26
February	68	13	.....	31	.....	24
March	69	13	.....	31	.....	25
April	74	15	.....	32	.....	27
May	70	16	.....	31	.....	23
June	76	15	.....	32	.....	29
July	73	14	.....	32	.....	27
August	70	15	.....	31	.....	24
September	74	15	.....	31	.....	28
October	73	16	.....	31	.....	26
November	82	16	.....	33	.....	33
December	78	16	.....	32	.....	30

[1] Includes states having less than 3 establishments in order that the operations of individual establishments may not be disclosed. These establishments are distributed as follows: Connecticut, 2; Illinois, 1; Indiana, 1; Michigan, 1; Ohio, 2; Rhode Island, 1; Wisconsin, 1; Maine, 2.

TABLE 34.—FELT GOODS: BY STATES, 1900—Continued.

	United States.	Massachusetts.	New Jersey.	New York.	Pennsylvania.	All other states.[1]
Skilled operatives, average number:						
Spinners—						
Men, 16 years and over	68	.....	1	14	1	52
Children, under 16 years	4	.....	.....	4	.....	.....
Weavers—						
Men, 16 years and over	115	.....	5	36	1	73
Women, 16 years and over	118	.....	.....	22	3	93
Finishers—						
Men, 16 years and over	149	5	24	59	1	60
Women, 16 years and over	95	10	.....	.....	.....	85
Children, under 16 years	3	1	.....	2	.....	.....
Machinery:						
Sets of woolen cards	302	66	30	120	12	74
Spindles, number	24,286	.....	3,440	6,629	208	14,009
Spinning—						
Woolen	23,235	.....	3,140	6,303	208	13,584
Doubling—						
Woolen	1,051	.....	300	326	.....	425
Looms on woolen or worsted goods, number	284	.....	5	93	5	181
Broad, 50 inches or over reed space—						
On woolen goods	271	.....	5	89	3	174
Narrow, under 50 inches reed space—						
On woolen goods	12	.....	.....	3	2	7
On worsted goods	1	.....	.....	1	.....	.....
Miscellaneous expenses:						
Total	$356,164	$67,612	$17,523	$114,900	$11,678	$144,451
Rent of works	$16,140	$6,080	$1,070	$2,500	$1,200	$5,290
Taxes, not including internal revenue	$28,391	$7,169	$4,909	$7,492	$410	$8,411
Rent of offices, insurance, interest, and all sundry expenses not hitherto included	$311,633	$54,363	$11,544	$104,908	$10,068	$130,750
Materials used:						
Total cost	$3,801,028	$953,203	$377,312	$987,380	$88,715	$1,394,418
Wool—						
Foreign, in condition purchased, pounds	4,248,880	734,713	133,057	554,623	155,409	2,671,078
Cost	$782,224	$143,995	$73,218	$172,238	$22,397	$370,376
Domestic, in condition purchased, pounds	5,357,383	680,164	182,140	2,085,101	11,330	2,398,648
Cost	$1,414,216	$253,092	$56,288	$534,189	$2,266	$568,381
Foreign and domestic, etc., scoured, pounds	6,468,097	1,088,649	315,197	1,835,883	62,644	3,165,724
Animal hair, and fur—						
Camel, alpaca, and vicuna hair, pounds	98,000	.....	.....	20,000	.....	78,000
Cost	$33,300	.....	.....	$6,000	.....	$27,300
Buffalo, cow, and other animal hair and fur, pounds	2,721,521	185,707	.....	25,920	1,720,357	789,537
Cost	$92,503	$11,445	.....	$1,109	$41,730	$38,219
Cotton, bales	2,437	1,628	418	329	.....	62
Pounds	1,225,850	814,157	208,800	174,781	.....	28,112
Cost	$77,683	$50,628	$14,638	$9,344	.....	$3,073
Materials not made in mill—						
Shoddy, pounds	712,373	536,242	93,890	64,756	.....	17,485
Cost	$80,737	$56,191	$10,327	$11,363	.....	$2,856
Wool waste and noils, pounds	2,653,590	929,043	404,430	554,205	.....	765,912
Cost	$552,992	$220,900	$156,799	$100,399	.....	$74,894
Tops, pounds	99,458	74,979	.....	24,479	.....	.....
Cost	$61,428	$48,736	.....	$12,692	.....	.....
Yarns not made in mill—						
Worsted, pounds	48,530	.....	.....	.....	.....	48,530
Cost	$28,877	.....	.....	.....	.....	$28,877
Merino, pounds	31,866	31,866	.....	.....	.....	.....
Cost	$6,373	$6,373	.....	.....	.....	.....
Cotton, pounds	51,707	.....	.....	14,955	.....	36,752
Cost	$9,657	.....	.....	$2,819	.....	$6,838
Silk, pounds	14	.....	.....	.....	.....	14
Cost	$61	.....	.....	.....	.....	$61
Linen, pounds	17,905	.....	.....	14,412	.....	3,493
Cost	$5,538	.....	.....	$3,603	.....	$1,935
Shoddy, made in mill for use therein, pounds	1,248,835	.....	.....	.....	.....	1,248,835
Cost	$50,098	.....	.....	.....	.....	$50,098
All other materials which are components of the product	$97,212	$55,476	$200	.....	$4,071	$37,465
Soap, pounds	968,495	195,477	188,600	41,301	165,042	378,075
Cost	$51,760	$8,955	$9,253	$10,792	$4,687	$18,073
Oil, for preparing wool for cards or combs, gallons	77,553	9,982	4,517	22,838	.....	40,216
Cost	$20,232	$2,107	$1,060	$7,027	.....	$10,038
Chemicals and dyestuffs	$128,296	$47,870	$29,083	$29,557	$1,251	$20,535
Fuel	$110,355	$21,986	$12,488	$30,804	$4,499	$40,578
Rent of power and heat	$1,976	.....	$601	$1,375	.....	.....
Mill supplies	$39,446	$9,647	$1,270	$11,687	$2,250	$14,592
All other materials	$91,629	$8,855	$5,920	$25,039	$5,418	$46,397
Freight	$64,435	$6,947	$6,167	$17,343	$146	$33,832
Products:						
Total value	$6,461,691	$1,526,830	$691,203	$1,734,136	$160,633	$2,348,889
All-wool woven goods, whether woolen or worsted—						
Wool cloths, etc., square yards	252,840	.....	.....	.....	.....	252,840
Value	$214,914	.....	.....	.....	.....	$214,914
Woolen overcoating, etc., square yards	3,728	.....	.....	.....	.....	3,728
Value	$3,727	.....	.....	.....	.....	$3,727
Wool dress goods, etc., and opera and similar flannels, square yards	3,480	.....	.....	.....	.....	3,480
Value	$2,057	.....	.....	.....	.....	$2,057
Flannels for underwear, square yards	20,836	.....	.....	.....	.....	20,836
Value	$7,527	.....	.....	.....	.....	$7,527
Blankets, square yards	11,104	.....	1,500	.....	.....	9,604
Value	$8,339	.....	$700	.....	.....	$7,639
Horse blankets, square yards	3,500	.....	.....	3,500	.....	.....
Value	$3,010	.....	.....	$3,010	.....	.....
Goods woven on cotton warp, etc.—						
Cotton warp blankets, square yards	52,428	.....	.....	.....	.....	52,428
Value	$72,661	.....	.....	.....	.....	$72,661
Felt goods—						
Felt cloths, square yards	2,056,002	569,500	138,224	.....	259,200	1,089,078
Value	$548,543	$142,385	$65,890	.....	$103,683	$236,585
Endless belts, square yards	1,114,357	.....	.....	626,857	.....	487,500
Value	$1,084,835	.....	.....	$617,881	.....	$466,954
Boot and shoe lining, square yards	1,052,538	989,717	.....	62,821	.....	.....
Value	$540,110	$500,938	.....	$39,172	.....	.....
Hair felting, square yards	125,000	.....	.....	.....	125,000	.....
Value	$56,950	.....	.....	.....	$56,950	.....
Trimming and lining felts, felt skirts, etc., square yards	2,469,830	983,155	545,619	941,056	.....	.....
Value	$796,718	$288,681	$146,869	$361,168	.....	.....

[1] Includes establishments distributed as follows: Connecticut, 2; Illinois, 1; Indiana, 1; Michigan, 1; Ohio, 2; Rhode Island, 1; Wisconsin, 1; Maine, 2.

TABLE 34.—FELT GOODS: BY STATES, 1900—Continued.

	United States.	Massachusetts.	New Jersey.	New York.	Pennsylvania.	All other states.[1]
Products—Continued.						
Total value—Continued.						
Felt goods—Continued.						
All other felts	$2,261,918	$392,882	$471,744	$639,136	.....	$758,156
Partly manufactured products for sale—						
Woolen yarn, all wool, pounds	39,000	.....	.....	.....	.....	39,000
Value	$18,400	.....	.....	.....	.....	$18,400
Waste, pounds	18,260	.....	70,000	.....	.....	8,260
Value	$7,368	.....	$6,000	.....	.....	$1,368
Flocks, pounds	2,169	.....	.....	.....	.....	2,169
Value	$197	.....	.....	.....	.....	$197
Value of all other products[2]	$834,417	$201,944	.....	$73,769	.....	$558,704
Comparison of products:						
Number of establishments reporting for both years	25	4	3	7	2	9
Value for census year	$3,867,905	$602,476	$55,874	$1,271,640	$153,683	$1,784,232
Value for preceding business year	$3,416,320	$512,768	$39,805	$1,179,764	$145,082	$1,538,901
Power:						
Number of establishments reporting	36	7	4	11	3	11
Total horsepower	7,973	1,755	622	2,834	400	2,362
Owned—						
Engines—						
Steam, number	52	9	5	22	5	11
Horsepower	5,129	810	557	1,857	350	1,555
Water wheels, number	29	10	2	6	3	8
Horsepower	2,657	920	65	862	50	760
Electric motors, number	6	1	.....	1	.....	4
Horsepower	132	25	.....	60	.....	47
Rented—						
Electric, horsepower	55	.....	.....	55	.....	.....
Furnished to other establishments, horsepower	14	.....	.....	.....	.....	14
Establishments classified by number of persons employed, not including proprietors and firm members:						
Total number of establishments	36	7	4	11	3	11
Under 5	1	.....	.....	.....	1	.....
5 to 20	6	1	2	3	.....	.....
21 to 50	4	.....	1	1	1	1
51 to 100	13	4	.....	3	1	5
101 to 250	10	2	1	4	.....	3
251 to 500	2	.....	.....	.....	.....	2

[1] Includes states having less than 3 establishments in order that the operations of individual establishments may not be disclosed. These establishments are distributed as follows: Connecticut, 2; Illinois, 1; Indiana, 1; Michigan, 1; Ohio, 2; Rhode Island, 1; Wisconsin, 1; Maine, 2.

[2] This item includes felt boots and shoes, $298,944; felt rugs, $3,090; felt mangle cloths, etc., $40,722; felt cord cloths and machine blankets, $114,930; wool boots, $370,000; wool yarn spun for lining department, $6,731.

TABLE 35.—WOOL HATS, BY STATES: 1900.

	United States.	Massachusetts.	New York.	[1] Pennsylvania.
Total number of establishments	24	4	5	15
Character of organization:				
Individual	4	1	1	2
Firm and limited partnership	15	.....	2	13
Incorporated company	5	3	2	.....
Capital:				
Total	$2,050,802	$402,082	$896,852	$751,868
Land	$108,000	$17,000	$46,500	$44,500
Buildings	$200,582	$40,000	$100,082	$60,500
Machinery, tools, and implements	$244,620	$38,500	$130,095	$76,025
Cash and sundries	$1,497,600	$306,582	$620,175	$570,843
Proprietors and firm members	37	.....	3	34
Salaried officials, clerks, etc.:				
Total number	57	17	23	17
Total salaries	$66,766	$15,459	$42,462	$8,845
Officers of corporations—				
Number	7	5	2	.....
Salaries	$15,505	$5,505	$10,000	.....
General superintendents, managers, clerks, etc.—				
Total number	50	12	21	17
Total salaries	$51,261	$9,954	$32,462	$8,845
Men—				
Number	44	9	21	14
Salaries	$49,741	$9,334	$32,462	$7,945
Women—				
Number	6	3	.....	3
Salaries	$1,520	$620	.....	$900
Wage-earners, including pieceworkers, and total wages:				
Greatest number employed at any one time during the year	2,912	662	1,354	896
Least number employed at any one time during the year	1,509	529	474	506
Average number	2,108	541	930	637
Wages	$937,855	$278,129	$403,213	$256,513
Men, 16 years and over—				
Average number	1,358	382	609	367
Wages	$727,253	$228,586	$319,729	$178,938
Women, 16 years and over—				
Average number	651	144	310	197
Wages	$195,995	$47,005	$81,558	$67,432
Children, under 16 years—				
Average number	99	15	11	73
Wages	$14,607	$2,538	$1,926	$10 143
Average number of wage-earners, including pieceworkers, employed during each month:				
Men, 16 years and over—				
January	1,900	398	367	344
February	1,200	396	451	353
March	1,253	395	506	352
April	1,333	425	551	357
May	1,309	362	589	358
June	1,388	374	677	337
July	1,445	289	793	363
August	1,508	282	824	402
September	1,635	386	833	416
October	1,546	414	730	402
November	1,305	430	514	361
December	1,265	436	467	362

[1] Two establishments in New Jersey included in Pennsylvania to avoid disclosing the operations of these establishments.

TABLE 35.—WOOL HATS, BY STATES: 1900—Continued.

	United States.	Massachusetts.	New York.	Pennsylvania.[1]
Average number of wage-earners, including pieceworkers, employed during each month—Con.				
Women, 16 years and over—				
January	476	147	165	164
February	498	145	185	168
March	528	147	223	168
April	563	149	243	171
May	574	136	260	178
June	627	141	327	159
July	786	124	439	223
August	861	124	480	257
September	895	158	481	256
October	868	160	454	254
November	567	150	226	191
December	569	147	245	177
Children, under 16 years—				
January	84	17	3	64
February	82	17	3	62
March	89	17	9	63
April	94	17	10	67
May	99	13	10	76
June	96	13	14	69
July	107	13	14	80
August	127	13	23	91
September	124	13	23	88
October	117	14	18	85
November	87	16	5	66
December	82	17	3	62
Skilled operatives, average number:				
Finishers—				
Men, 16 years and over	217	.....	116	101
Women, 16 years and over	100	.....	100	.....
Machinery:				
Sets of woolen cards	140	30	60	50
Formers for fur hats	4	2	.....	2
Miscellaneous expenses:				
Total	$185,644	$97,319	$68,296	$20,029
Rent of works	$14,890	$1,200	$8,462	$5,228
Taxes, not including internal revenue	$8,074	$2,784	$2,974	$2,316
Rent of offices, insurance, interest, and all sundry expenses not hitherto included	$162,680	$93,335	$56,860	$12,485
Materials used:				
Total cost	$2,042,202	$587,902	$789,348	$664,952
Wool—				
Foreign, in condition, purchased, pounds	639,211	50,000	390,149	199,062
Cost	$218,651	$25,000	$92,463	$101,188
Domestic, in condition, purchased, pounds	2,074,163	920,738	668,344	485,081
Cost	$570,322	$242,612	$124,655	$203,055
Foreign and domestic, etc., scoured, pounds	1,898,605	771,084	443,378	684,143
Animal hair and fur—				
Buffalo, cow, and other hair and fur, pounds	121,482	61,482	.....	60,000
Cost	$87,196	$42,196	.....	$45,000
Materials not made in mill—				
Shoddy, pounds	3,135	.....	1,635	1,500
Cost	$616	.....	$301	$315
Wool waste and noils, pounds	862,982	84,467	515,156	263,359
Cost	$370,792	$47,867	$222,682	$100,243
Wool hat bodies and hats in the rough, dozen	4,939	.....	2,676	2,263
Cost	$13,920	.....	$9,618	$4,302
Fur hat bodies and hats in the rough, dozen	8,500	.....	8,500	.....
Cost	$21,982	.....	$21,982	.....
All other materials which are components of the products	$474,100	$133,966	$201,316	$138,818
Soap, pounds	227,833	15,000	102,755	110,078
Cost	$9,930	$550	$4,341	$5,039
Oil for preparing wool for cards or combs, gallons	1,730	70	1,055	605
Cost	$567	$140	$255	$172
Chemicals and dyestuffs	$108,502	$49,290	$32,784	$26,428
Fuel	$49,670	$15,819	$19,022	$14,829
Mill supplies	$9,741	$2,000	$4,175	$3,566
All other materials	$63,193	$18,233	$40,565	$4,395
Freight	$43,020	$10,229	$15,189	$17,602
Products:				
Total value	$3,591,940	$1,103,003	$1,376,721	$1,112,216
Hats—				
Wool, dozen	811,425	247,163	284,494	279,768
Value	$3,161,361	$939,298	$1,218,498	$1,003,565
Fur, dozen	43,994	20,494	8,500	15,000
Value	$285,705	$153,705	$47,000	$85,000
Partly manufactured products for sale—				
Wool hat bodies and hats in the rough, dozen	56,006	3,500	52,506	.....
Value	$120,262	$10,000	$110,262	.....
All other products	$441	.....	$441	.....
Amount received for contract work	$24,171	.....	$520	$23,651
Comparison of products:				
Number of establishments reporting for both years	18	3	5	10
Value for census year	$3,234,380	$1,026,841	$1,376,721	$830,818
Value for preceding business year	$2,791,933	$884,792	$1,101,932	$805,209
Power:				
Number of establishments reporting	21	4	4	13
Total horsepower	2,329	475	1,055	799
Owned—				
Engines—				
Steam, number	26	4	7	15
Horsepower	1,919	475	780	664
Water wheels, number	9	.....	3	6
Horsepower	405	.....	275	130
Electric motors, number	1	.....	.....	1
Horsepower	5	.....	.....	5
Establishments classified by number of persons employed, not including proprietors or firm members:				
Total number of establishments	24	4	5	15
No employees	1	.....	.....	1
Under 5	3	.....	1	2
5 to 20	1	.....	.....	1
21 to 50	6	.....	.....	6
51 to 100	3	1	.....	2
101 to 250	5	2	1	2
251 to 500	5	1	3	1

[1] Two establishments in New Jersey included in Pennsylvania to avoid disclosing the operations of these establishments.

TABLE 36.—CARDING MILLS

		United States.	Alabama.	Arkansas.	Georgia.	Kentucky.	Maine.
1	Number of establishments	231	9	11	9	23	20
	Character of organization:						
2	Individual	178	3	6	8	15	17
3	Firm and limited partnership	51	5	5	1	8	2
4	Incorporated company	2	1	.....	.....	.....	1
	Capital:						
5	Total	$458,286	$8,175	$15,025	$7,111	$17,067	$56,483
6	Land	$59,433	$875	$1,555	$1,065	$1,805	$2,555
7	Buildings	$98,805	$750	$3,800	$895	$4,015	$11,160
8	Machinery, tools, and implements	$222,148	$5,700	$8,800	$5,050	$10,800	$24,100
9	Cash and sundries	$77,900	$850	$870	$101	$447	$18,668
10	Proprietors and firm members	171	14	14	1	12	11
	Salaried officials, clerks, etc.:						
11	Total number	5	.....	1	.....	1	1
12	Total salaries	$2,390	.....	$90	.....	$300	$1,000
	General superintendents, managers, clerks, etc.—						
13	Total number	5	.....	1	.....	1	1
14	Total salaries	$2,390	.....	$90	.....	$300	$1,000
	Men—						
15	Number	5	.....	1	.....	1	1
16	Salaries	$2,390	.....	$90	.....	$300	$1,000
	Wage-earners, including pieceworkers, and total wages:						
17	Greatest number employed at any one time during the year	300	10	12	12	39	40
18	Least number employed at any one time during the year	249	7	12	11	30	27
19	Average number	140	5	6	6	14	13
20	Wages	$33,106	$843	$930	$835	$2,106	$4,478
	Men, 16 years and over—						
21	Average number	102	4	4	6	12	8
22	Wages	$26,168	$823	$710	$835	$1,840	$3,363
	Women, 16 years and over—						
23	Average number	23	.....	1	.....	1	4
24	Wages	$5,289	.....	$80	.....	$150	$915
	Children, under 16 years—						
25	Average number	15	1	1	.....	1	1
26	Wages	$1,649	$20	$140	.....	$116	$200
	Average number of wage-earners, including pieceworkers, employed during each month:						
	Men 16 years and over—						
27	January	51	1	2	4	6	1
28	February	49	1	.....	4	6	1
29	March	53	1	2	5	5	5
30	April	74	2	2	5	5	7
31	May	127	1	2	5	14	11
32	June	136	1	3	5	15	16
33	July	148	3	6	5	21	11
34	August	157	6	6	7	25	15
35	September	155	7	8	9	21	11
36	October	130	7	10	10	10	13
37	November	89	6	7	6	7	6
38	December	64	6	3	6	5	4
	Women, 16 years and over—						
39	January	12	.....	.....	.....	.....	.....
40	February	13	.....	.....	.....	.....	.....
41	March	15	.....	1	.....	.....	.....
42	April	28	.....	1	.....	.....	5
43	May	31	.....	1	.....	2	5
44	June	32	.....	1	.....	3	6
45	July	25	.....	1	.....	1	5
46	August	28	.....	1	.....	2	6
47	September	28	.....	1	.....	2	6
48	October	27	.....	1	.....	2	4
49	November	21	.....	1	.....	2	4
50	December	21	.....	3	.....	.....	6
	Children under 16 years—						
61	January	5	.....	.....	.....	.....	1
62	February	5	.....	.....	.....	.....	1
53	March	6	.....	1	.....	.....	1
54	April	11	.....	1	.....	1	.....
55	May	18	.....	1	.....	1	.....
66	June	25	.....	1	.....	3	2
57	July	25	1	1	.....	4	.....
58	August	25	1	1	.....	3	2
59	September	24	1	1	.....	3	2
60	October	17	1	1	.....	.....	2
61	November	10	1	1	.....	.....	2
62	December	10	1	1	.....	.....	2
	Skilled operatives, average number:						
	Spinners—						
63	Men	5	.....	.....	.....	.....	.....
64	Women	2	.....	.....	.....	.....	.....
	Weavers—						
65	Men	1	.....	.....	.....	.....	.....
66	Women	1	.....	.....	.....	.....	.....
	Finishers—						
67	Men	1	.....	.....	.....	.....	.....
68	Women	1	.....	.....	.....	.....	.....
69	Children	2	.....	.....	.....	.....	.....
	Machinery:						
70	Sets of woolen cards	259	7	11	9	24	26
71	Combing machines, number	7	.....	.....	.....	.....	.....
72	Of American manufacture	7	.....	.....	.....	.....	.....
73	Of foreign manufacture	.....	.....	.....	.....	.....	.....
74	Spindles, number	12,025	.....	240	.....	.....	1,797
	Spinning—						
75	Woolen	10,889	.....	240	.....	.....	1,467
	Doubling—						
76	Woolen	1,136	.....	.....	.....	.....	330
77	Looms on woolen or worsted goods, number	92	.....	.....	.....	.....	17
	Broad, 50 inches or over, reed space—						
78	On woolen goods	31	.....	.....	.....	.....	6
	Narrow, under 50 inches, reed space—						
79	On woolen goods	60	.....	.....	.....	.....	11
	Hand—						
80	On woolen or worsted goods	1	.....	.....	.....	.....	.....

BY STATES: 1900.

Minnesota.	Missouri.	New York.	North Carolina.	Ohio.	Pennsylvania.	Tennessee.	Vermont.	Virginia.	West Virginia.	Wisconsin.	All other states.[1]	
5	17	16	9	3	26	33	8	4	12	15	11	1
						26	7	3	11	12	10	2
5	13	12	8	3	19	7	1	1	1	3	1	3
	4	4	1		7							4
$13,650	$33,455	$22,016	$7,943	$11,700	$96,556	$65,919	$12,990	$10,740	$8,337	$53,194	$17,925	5
$2,900	$3,135	$2,659	$865	$2,000	$16,667	$8,930	$2,825	$750	$987	$6,585	$3,275	6
$4,700	$7,050	$4,172	$1,503	$3,100	$21,310	$8,665	$6,225	$1,875	$2,320	$12,415	$4,850	7
$5,500	$19,575	$9,995	$5,550	$5,800	$43,204	$26,705	$3,550	$6,950	$4,625	$27,844	$8,400	8
$550	$3,695	$5,190	$25	$800	$15,375	$21,619	$390	$1,165	$405	$6,350	$1,400	9
4	5	18	4	2	32	15	10	1	8	11	9	10
						2						11
						$1,000						12
												13
						2						14
						$1,000						
												15
						2						16
						$1,000						
3	39	4	9	8	20	53		8	10	27	6	17
2	24	4	9	8	18	50		7	9	26	5	18
2	13	2	2	3	11	34		2	3	21	3	19
$600	$2,689	$450	$242	$649	$3,208	$6,861		$617	$725	$7,318	$555	20
2	11	1	2	2	7	24		1	2	13	3	21
$600	$2,339	$350	$242	$418	$2,580	$5,251		$462	$675	$5,125	$555	22
						5				7		23
	1	1		1	2	$1,105				$2,073		24
	$255	$100		$231	$380							
												25
					2	5		1	1	1		26
	1				$248	$505		$155	$50	$120		
	$95											
					5	18				10	1	27
3					6	18				10	1	28
2					6	16				10		29
3					8	20				12	3	30
3	5		2		10	32		1	1	15	3	31
2	25	1	2	2	10	32		1	6	14	1	32
2	22	1	3	4	6	31		3	8	16	2	33
2	25	1	4	4	7	29		4	7	15	2	34
1	25	1	3	4	7	29		5	5	15	6	35
1	23	1	4	4	6	29		3	3	15	5	36
2	6	1	6	4	8	21				12	2	37
3	2	1	4	4	6	16				12	2	38
3		1										
					1	4				7		39
					2	4				7		40
					1	6				7		41
					3	7				8		42
	3			1	2	7				9		43
	3			2	2	7				7		44
	1	3		2	1	7				7		45
	2	1		2	2	5				6		46
	2	1		3	1	5				7		47
	2	1		3	2	6				7		48
	2	1		3	1	6				7		49
	1	1		1	2	4				7		50
		1				4						51
						4						52
						4						53
						6						54
	1				2	6		3	2	2		55
	1				2	6		3	2	2		56
	2				4	6		3	2	2		57
	2				3	7		2	2	2		58
	2				3	7		2	2	2		59
	2				2	7		2		2		60
	1				2	6		2				61
					2	4						62
					2	4						
						4		1				63
					1	1						64
												65
					1							66
					1							
												67
						1						68
					1							69
						2						
						37	9	4	15	19	12	70
5	19	18	10	3	31	4						71
1					4	2						72
1					4							73
484	534	809	200	544	4,025	678		450	570	1,186	508	74
484	417	715	200	494	3,792	580		450	538	1,040	472	75
									32	146	36	76
	117	94		50	233	98				7	4	77
	3	5		7	44		1	4				
									1	2	1	78
		1		4	16							
							1	3		5	3	79
	3	4		3	27							80
					1							

[1] Includes establishments distributed as follows: Connecticut, 1; Illinois, 1; Indiana, 1; Iowa, 1; Mississippi, 1; New Hampshire, 2; Oregon, 2; South Carolina, 1; Texas, 1.

TABLE 36.—CARDING MILLS

		United States.	Alabama.	Arkansas.	Georgia.	Kentucky.	Maine.
	Machinery—Continued.						
81	Looms on carpets and rugs, number	3					
82	Ingrain, hand	1					
83	Power	2					
	Miscellaneous expenses:						
84	Total	$10,480	$225	$258	$103	$500	$1,174
85	Rent of works	$3,362	$113			$206	$260
86	Taxes, not including internal revenue	$2,540	$65	$193	$63	$161	$394
87	Rent of offices, insurance, interest, and all sundry expenses not hitherto included	$4,578	$47	$65	$40	$133	$520
	Materials used:						
88	Total cost	$395,116	$14,664	$16,148	$7,761	$34,827	$48,126
	Wool—						
89	Domestic, in condition purchased, pounds	1,540,025	99,041	97,137	51,922	113,164	145,884
90	Cost	$375,469	$14,011	$15,117	$7,436	$33,857	$45,265
91	Domestic, etc., scoured, pounds	1,189,727	48,465	57,675	31,650	110,703	131,075
	Materials not made in mill—						
92	Shoddy, pounds	1,554					
93	Cost	$348					
94	Wool waste and noils, pounds	5,200					
95	Cost	$544					
	Yarns not made in mill—						
96	Woolen, pounds	925					
97	Cost	$400					
98	Cotton, pounds	4,190					80
99	Cost	$676					$16
100	Linen, pounds	50					
101	Cost	$9					
102	Jute, ramie, or other of vegetable fiber, pounds	100					
103	Cost	$12					
104	All other materials which are components of the product	$50					
105	Soap, pounds	22,716	125	100	50		2,044
106	Cost	$873	$5	$5	$12		$94
107	Oil, for preparing wool for cards or combs, gallons	7,274	213	200	40	135	1,052
108	Cost	$1,936	$30	$47	$13	$71	$446
109	Chemicals and dyestuffs	$1,966					$893
110	Fuel	$5,436	$60	$494	$75	$415	$347
111	Rent of power and heat	$762		$100		$50	$50
112	Mill supplies	$4,696	$215	$280	$95	$371	$640
113	All other materials	$1,610	$335	$90	$130	$18	$293
114	Freight	$329	$8	$15		$45	$82
	Products:						
115	Total value	$534,512	$20,163	$21,930	$11,547	$42,401	$65,155
	All-wool woven goods, whether woolen or worsted—						
116	Wool cloths, doeskins, cassimeres, cheviots, tweeds, indigo flannels, and broadcloths, for men's wear, square yards	7,238					4,500
117	Value	$6,225					$3,300
118	Woolen overcoatings, cloakings, kerseys, etc., for men's or women's wear, square yards	100					
119	Value	$60					
120	Flannels for underwear, square yards	11,356					
121	Value	$4,072					
122	Blankets, square yards	13,500					3,300
123	Value	$6,535					$1,400
	Union, or cotton mixed, woven goods—						
124	Unions, tweeds, cheviots, cassimeres, or other goods, for men's wear, square yards	350					
125	Value	$150					
126	Flannels for underwear, square yards	800					
127	Value	$105					
	Goods woven on cotton warps, with weft partly or wholly of wool, worsted, or hair; or cotton weft with warp of wool—						
128	Wool-filling cassimeres, doeskins, jeans, tweeds, coatings, suitings, and other cotton warp goods, for men's wear, not specified below, square yards	50					
129	Value	$35					
130	Satinets and linseys, square yards	3,163					413
131	Value	$1,513					$413
132	Wool-filling dress goods and repellants, square yards	60					
133	Value	$60					
134	Domett flannels and shirtings, square yards	207					57
135	Value	$94					$30
136	Cotton-warp blankets, square yards	650					150
137	Value	$420					$140
	Carpets and rugs—						
	Carpets—						
138	Ingrain, 2-ply, square yards	900					
139	Value	$515					
140	Ingrain, 3-ply, square yards	543					
141	Value	$380					
	Partly manufactured products for sale—						
142	Woolen yarn, all wool, pounds	266,789		600			15,600
143	Value	$127,138		$300			$10,860
144	Wool card rolls, pounds	857,296	44,800	52,577	28,700	100,366	110,279
145	Value	$373,404	$19,745	$21,630	$11,347	$42,266	$49,012
146	All other products	$2,391					
147	Amount received for contract work	$11,020	$368		$200		
	Comparison of products:						
148	Number of establishments reporting for both years	214	9	11	9	20	20
149	Value for census year	$484,920	$20,163	$21,930	$11,547	$38,101	$65,155
150	Value for preceding business year	$479,850	$19,022	$24,206	$11,414	$38,280	$65,446
	Power:						
151	Number of establishments reporting	229	8	11	9	23	20
152	Total horsepower	3,346	150	169	140	291	398
	Owned—						
	Engines—						
153	Steam, number	73	3	5	2	13	1
154	Horsepower	1,097	24	109	55	180	47
155	Gas or gasoline, number	1					
156	Horsepower	6					
157	Water wheels, number	165	6	3	9	8	19
158	Horsepower	2,174	126	44	85	96	321
159	Electric motors, number	1					
160	Horsepower	5					
161	Other power, horsepower	2		2			

BY STATES: 1900—Continued.

Minnesota.	Missouri.	New York.	North Carolina.	Ohio.	Pennsylvania.	Tennessee.	Vermont.	Virginia.	West Virginia.	Wisconsin.	All other states.[1]	
					3							81
					1							82
					2							83
$483	$510	$729	$51	$282	$1,369	$2,219	$122	$165	$236	$1,740	$314	84
	$123	$324			$260	$1,776		$70	$75	$125	$30	85
$58	$198	$138	$31	$57	$366	$233	$51	$33	$56	$339	$104	86
$425	$189	$267	$20	$225	$743	$210	$71	$62	$105	$1,276	$180	87
$13,666	$35,923	$19,967	$5,313	$4,293	$39,843	$60,747	$6,722	$9,935	$15,258	$49,318	$12,605	88
48,169	122,690	73,259	18,122	21,074	158,671	232,410	18,390	34,120	40,626	184,077	78,269	89
$12,849	$34,681	$18,368	$5,116	$4,025	$35,492	$58,468	$6,526	$9,782	$15,080	$47,221	$12,175	90
38,758	113,640	53,048	17,122	11,287	103,448	223,330	18,390	32,545	40,626	126,503	31,462	91
	4				550	1,000						92
	$7				$91	$250						93
					200	5,000						94
					$44	$500						95
												96
					925							97
					$400							98
		365			3,445					300		99
		$71			$499					$90		100
					50							101
					$9							102
					100							103
					$12							104
				$50								105
	1,275	2,684	895	400	11,195	525		300		1,450	1,673	106
	$36	$111	$32	$15	$456	$16		$8		$47	$36	107
905	390	519	83	60	1,565	636	185	438	75	404	374	108
$120	$136	$188	$50	$15	$334	$135	$78	$67	$11	$98	$97	109
	$102	$70		$60	$622	$150		$4		$60	$5	110
$595	$523	$568		$55	$570	$634	$25		$85	$905	$85	111
	$45	$203			$15	$18	$15			$232	$34	112
$85	$280	$236	$105	$73	$1,053	$446	$43	$45	$59	$500	$170	113
$10	$75	$140	$10		$183	$130	$25		$21	$150		114
$7	$38	$12			$63		$10	$29	$2	$15	$3	
$18,350	$46,927	$27,869	$6,824	$5,984	$56,266	$85,890	$8,470	$12,359	$17,946	$69,511	$16,920	115
		513			1,325						900	116
		$300			$1,785						$840	117
												118
					100							119
					$60							120
		1,575		1,206	7,825					750		121
		$665		$422	$2,635					$350		122
					9,650					550		123
					$4,885					$250		
												124
					350							125
					$150							126
					800							127
					$105							
												128
		50										129
		$35										130
										2,750		131
										$1,100		132
					60							133
					$60							134
		150										135
		$64										136
		300			200							137
		$180			$100							
												138
					900							139
					$515							140
					543							141
					$380							
												142
8,725	20,170	4,800		5,440	32,784	42,000		13,000	8,000	75,170	500	143
$5,803	$12,207	$3,520		$3,333	$20,118	$20,000		$6,500	$4,000	$40,197	$300	144
25,800	79,941	43,865	15,475	3,625	57,757	164,653	16,700	15,230	28,933	33,625	34,970	145
$12,542	$34,720	$22,550	$6,808	$1,813	$23,781	$65,476	$8,470	$5,809	$13,946	$18,014	$15,475	146
		$25		$416	$1,550	$100					$300	
		$530	$16		$142	$164				$9,600		147
												148
5	15	14	9	3	23	31	8	3	11	13	10	149
$18,350	$40,647	$24,329	$6,824	$5,984	$52,869	$84,042	$8,470	$10,127	$17,426	$43,236	$15,720	150
$18,575	$39,270	$22,400	$7,365	$5,720	$46,148	$87,950	$8,640	$8,650	$17,577	$41,887	$18,300	
5	17	16	9	3	26	32	8	4	12	15	11	151
61	287	149	100	40	459	360	140	40	116	361	115	152
												153
4	12	4		2	9	8			1	8	1	154
41	190	48		30	160	83			10	117	3	155
						1						156
						6						157
2	5	11	12	1	23	23	8	4	13	8	10	158
20	91	97	100	10	294	258	140	40	106	236	110	159
					1							160
					5							161

[1] Includes establishments distributed as follows: Connecticut, 1; Illinois, 1; Indiana, 1; Iowa, 1; Mississippi, 1; New Hampshire, 2; Oregon, 2; South Carolina, 1; Texas, 1.

TABLE 36.—CARDING MILLS,

		United States.	Alabama.	Arkansas.	Georgia.	Kentucky.	Maine.
	Power—Continued.						
	Total horsepower—Continued.						
	Rented—						
162	Electric, horsepower	4	.....	.....	.....	.....	.....
163	Other kind, horsepower	58	.....	14	.....	15	.....
164	Furnished to other establishments, horsepower	45	.....	.....	.....	.....	.....
	Establishments classified by number of persons employed, not including proprietors and firm members:						
165	Total number of establishments	231	9	11	9	23	20
166	No employees	98	4	5	.....	6	7
167	Under 5	126	5	6	9	15	12
168	5 to 20	6	.....	.....	.....	2	1
169	21 to 50	1	.....	.....	.....	.....	.....

BY STATES: 1900—Continued.

Minnesota.	Missouri.	New York.	North Carolina.	Ohio.	Pennsylvania.	Tennessee.	Vermont.	Virginia.	West Virginia.	Wisconsin.	All other states.[1]	
		4										162
	6					13				8	2	163
	40			5								164
5	17	16	9	3	26	33	8	4	12	15	11	165
3	2	14	4		15	12	6	1	7	7	5	166
2	14	2	5	3	11	19	2	3	5	7	6	167
	1					1				1		168
						1						169

[1] Includes establishments distributed as follows: Connecticut, 1; Illinois, 1; Indiana, 1; Iowa, 1; Mississippi, 1; New Hampshire, 2; Oregon, 2; South Carolina, 1; Texas, 1.

TABLE 37.—WOOL SCOURING, BY STATES: 1900.

	United States.	California.	Massachusetts.	New Jersey.	New Mexico.	All other states.[1]
Number of establishments	25	6	5	3	4	7
Character of organization:						
Individual	11	3	3	2	1	2
Firm and limited partnership	6	2	.....	.....	1	3
Incorporated company	8	1	2	1	2	2
Capital:						
Total	$1,061,123	$329,668	$354,154	$23,776	$136,700	$216,825
Land	$82,950	$10,000	$18,750	.....	$4,700	$19,500
Buildings	$148,000	$20,000	$75,000	.....	$19,000	$34,000
Machinery, tools, and implements	$377,576	$74,600	$166,500	$18,476	$32,000	$86,000
Cash and sundries	$452,597	$195,068	$93,904	$5,300	$81,000	$77,325
Proprietors and firm members	11	1	3	.....	1	6
Salaried officials, clerks, etc.:						
Total number	45	9	20	4	3	9
Total salaries	$72,011	$11,440	$44,176	$3,278	$2,960	$10,157
Officers of corporations—						
Number	9	.....	3	2	.....	4
Salaries	$15,000	.....	$8,000	$2,000	.....	$5,000
General superintendents, managers, clerks, etc.—						
Total number	36	9	17	2	3	5
Total salaries	$57,011	$11,440	$36,176	$1,278	$2,960	$5,157
Men—						
Number	36	9	17	2	3	5
Salaries	$57,011	$11,440	$36,176	$1,278	$2,960	$5,157
Wage-earners, including pieceworkers, and total wages:						
Greatest number employed at any one time during the year	1,070	382	416	35	79	158
Least number employed at any one time during the year	473	147	175	21	53	77
Average number	720	230	298	24	67	101
Wages	$338,606	$107,167	$145,946	$12,065	$21,890	$51,538
Men, 16 years and over—						
Average number	646	189	297	17	42	101
Wages	$316,924	$93,375	$145,556	$8,565	$17,890	$51,538
Women, 16 years and over—						
Average number	74	41	1	7	25	.....
Wages	$21,682	$13,792	$390	$3,500	$4,000	.....
Average number of wage-earners, including pieceworkers, employed during each month:						
Men, 16 years and over—						
January	680	216	326	15	38	85
February	632	178	318	15	38	83
March	535	146	272	13	32	72
April	449	97	230	13	33	76
May	456	67	198	12	40	139
June	548	145	231	14	42	116
July	739	255	295	18	47	124
August	741	203	346	21	47	124
September	752	222	335	21	47	127
October	734	222	340	26	49	97
November	734	250	332	21	46	85
December	752	263	347	14	43	85
Women, 16 years and over—						
January	73	38	1	7	27	.....
February	66	28	1	7	27	.....
March	57	31	2	7	20	.....
April	52	23	2	7	20	.....
May	29	.....	2	7	20	.....
June	51	23	1	7	20	.....
July	92	57	1	7	27	.....
August	93	58	1	7	27	.....
September	98	63	1	7	27	.....
October	91	56	1	7	27	.....
November	88	53	1	7	27	.....
December	98	63	1	7	27	.....
Miscellaneous expenses:						
Total	$102,039	$45,276	$30,569	$2,831	$5,500	$17,863
Rent of works	$19,450	$9,920	$1,655	$2,200	.....	$5,675
Taxes, not including internal revenue	$19,795	$14,862	$3,355	$81	$650	$847
Rent of offices, insurance, interest, and all sundry expenses not hitherto included	$62,794	$20,494	$25,559	$550	$4,850	$11,341
Materials used:						
Total cost	$193,826	$53,354	$78,371	$3,695	$22,930	$35,476
Soap, pounds	567,169	200,000	265,937	15,907	.....	85,325
Cost	$16,763	$3,000	$10,268	$482	.....	$3,013
Oil, for preparing wool for cards or combs, gallons	950	.....	.....	350	.....	600
Cost	$450	.....	.....	$210	.....	$240
Chemicals and dyestuffs	$66,393	$24,498	$21,127	$54	$13,020	$7,694
Fuel	$42,931	$10,380	$15,934	$1,067	$5,750	$9,800
Rent of power and heat	$1,446	.....	$1,146	$300	.....	.....
Mill supplies	$20,816	$1,390	$15,020	$1,327	$660	$2,419
All other materials	$8,982	$3,086	$1,702	$130	$500	$3,564
Freight	$36,045	$11,000	$13,174	$125	$3,000	$8,746
Products:						
Pounds of wool scoured	70,878,519	19,050,000	30,709,844	503,420	6,200,000	14,415,255
Amount received for wool scouring	$889,809	$293,200	$334,912	$32,585	$77,875	$151,237
Comparison of products:						
Number of establishments reporting for both years	23	6	5	3	3	6
Value for census year	$839,079	$293,200	$334,912	$32,585	$46,875	$131,507
Value for preceding business year	$764,052	$283,000	$284,052	$33,000	$46,000	$118,000
Power:						
Number of establishments reporting	25	6	5	3	4	7
Total horsepower	2,900	485	1,380	80	185	770
Owned—						
Engines, steam—						
Number	25	6	6	3	4	6
Horsepower	2,333	485	890	53	185	720
Water wheels—						
Number	8	.....	5	2	.....	1
Horsepower	567	.....	490	27	.....	50
Furnished to other establishments, horsepower	116	.....	.....	.....	.....	116
Establishments classified by number of persons employed, not including proprietors and firm members:						
Total number of establishments	25	6	5	3	4	7
5 to 20	12	.....	1	3	3	5
21 to 50	6	3	1	.....	1	1
51 to 100	6	3	2	.....	.....	1
101 to 250	1	.....	1	.....	.....	.....

[1] Includes establishments distributed as follows: Colorado, 1; Connecticut, 1; Illinois, 2; Missouri, 1; Oregon, 1; Pennsylvania, 1.

TABLE 38.—WOOL PULLING, BY STATES: 1900.

	United States.	Missouri.	New York.	Pennsylvania.	All other states.[1]
Number of establishments	34	4	5	7	18
Character of organization:					
Individual	16	2	2	2	10
Firm and limited partnership	11	2	3	4	2
Incorporated company	6				6
Miscellaneous	1			1	
Capital:					
Total	$944,715	$65,420	$114,510	$222,690	$542,095
Land	$104,700	$400	$46,600	$20,000	$37,700
Buildings	$140,700	$500	$31,400	$31,700	$77,100
Machinery, tools, and implements	$91,275	$15,120	$6,960	$17,550	$51,645
Cash and sundries	$608,040	$49,400	$29,550	$153,440	$375,650
Proprietors and firm members	31	4	7	9	11
Salaried officials, clerks, etc.:					
Total number	35	1	1	4	29
Total salaries	$35,422	$1,200	$600	$2,192	$31,430
Officers of corporations—					
Number	8				8
Salaries	$8,600				$8,600
General superintendents, managers, clerks, etc.—					
Total number	27	1	1	4	21
Total salaries	$26,822	$1,200	$600	$2,192	$22,830
Men—					
Number	25	1	1	3	20
Salaries	$25,686	$1,200	$600	$1,776	$22,110
Women—					
Number	2			1	1
Salaries	$1,136			$416	$720
Wage-earners, including pieceworkers, and total wages:					
Greatest number employed at any one time during the year	631	71	79	89	392
Least number employed at any one time during the year	351	13	51	85	202
Average number	475	33	59	85	298
Wages	$247,950	$19,759	$34,866	$44,393	$148,932
Men, 16 years and over—					
Average number	475	33	59	85	298
Wages	$247,950	$19,759	$34,866	$44,393	$148,932
Average number of wage-earners, including pieceworkers, employed during each month:					
Men, 16 years and over—					
January	433	46	50	88	249
February	441	46	50	89	256
March	524	69	61	88	306
April	491	31	63	86	311
May	452	20	65	85	282
June	467	8	78	84	297
July	482	11	82	83	306
August	482	13	68	84	317
September	455	13	53	83	306
October	485	48	48	84	305
November	502	48	46	83	325
December	486	46	46	84	310
Miscellaneous expenses—					
Total	$47,395	$4,063	$7,755	$7,328	$28,249
Rent of works	$6,210	$1,530	$60	$2,580	$2,040
Taxes, not including internal revenue	$6,810	$233	$1,920	$840	$3,817
Rent of offices, insurance, interest, and all sundry expenses not hitherto included	$34,075	$2,300	$5,475	$3,908	$22,392
Amount paid for contract work	$300		$300		
Materials used:					
Total cost	$53,975	$2,956	$3,552	$9,231	$38,236
Sheepskins handled, number	103,000			103,000	
All other materials used which are components of the product	$7,006	$376	$1,250	$4,380	$1,000
Oil, for preparing wool for cards or combs, gallons	5,000				5,000
Cost	$1,000				$1,000
Chemicals and dye stuffs	$7,900	$500			$7,400
Fuel	$19,832	$1,910	$1,565	$2,910	$13,447
Rent of power and heat	$960				$960
Mill supplies	$2,788	$80	$125	$838	$1,745
All other materials	$8,794	$90	$552	$843	$7,309
Freight	$5,695		$60	$260	$5,375
Products:					
Amount received for custom or contract work	$531,287	$45,800	$56,731	$96,314	$332,442
Wool pulled, pounds	6,112,298	784,000	1,024,178	2,071,000	2,233,120
Value	$529,287	$45,800	$56,731	$96,314	$330,442
Tallow rendered, pounds	500,000				500,000
Value	$2,000				$2,000
Comparison of products:					
Number of establishments reporting for both years	21	1	2	3	15
Value for census year	$372,137	$35,000	$40,283	$31,012	$265,842
Value for preceding year	$331,754	$30,000	$34,000	$30,904	$236,850
Power:					
Number of establishments reporting	17	1	1	2	13
Total horsepower	825	55	50	130	590
Owned—					
Engines—					
Steam, number	21	1	1	2	17
Horsepower	640	50	50	115	425
Gas or gasoline, number	1			1	
Horsepower	15			15	
Water wheels, number	2				2
Horsepower	125				125
Electric motors, number	1	1			
Horsepower	5	5			
Rented—					
Electric, horsepower	40				40
Establishments classified by number of persons employed, not including proprietors and firm members:					
Total number of establishments	34	4	5	7	18
No employees	1				1
Under 5	6	1	2		3
5 to 20	16	1	2	6	7
21 to 50	9	2	1	1	5
51 to 100	2				2

[1] Includes establishments distributed as follows: California, 2; Illinois, 1; Indiana, 1; Kentucky, 1; Maine, 1; Massachusetts, 2; Minnesota, 1; New Jersey, 1; Ohio, 2; Washington, 1; Wisconsin, 1.

TABLE 39.—SHODDY,

		United States.	California.	Connecticut.
1	Number of establishments	105	3	7
	Character of organization:			
2	Individual	58	1	3
3	Firm and limited partnership	30	1	4
4	Incorporated company	17	1	.....
	Capital:			
5	Total	$5,272,929	$10,225	$194,074
6	Land	$434,675	$1,500	$30,050
7	Buildings	$765,336	$2,625	$66,650
8	Machinery, tools, and implements	$1,365,925	$2,500	$67,651
9	Cash and sundries	$2,706,993	$3,600	$329,723
10	Proprietors and firm members	102	4	13
	Salaried officials, clerks, etc.:			
11	Total number	139	.....	8
12	Total salaries	$166,704	.....	$8,191
	Officers of corporations—			
13	Number	18	.....	.....
14	Salaries	$44,462	.....	.....
	General superintendents, managers, clerks, etc.—			
15	Total number	121	.....	8
16	Total salaries	$122,242	.....	$8,191
	Men—			
17	Number	111	.....	8
18	Salaries	$118,506	.....	$8,191
	Women—			
19	Number	10	.....	.....
20	Salaries	$3,736	.....	.....
	Wage-earners, including pieceworkers, and total wages:			
21	Greatest number employed at any one time during the year	2,426	9	144
22	Least number employed at any one time during the year	1,520	8	101
23	Average number	1,926	8	118
24	Wages	$748,948	$3,940	$44,163
	Men, 16 years and over—			
25	Average number	1,425	8	101
26	Wages	$620,444	$3,940	$40,461
	Women, 16 years and over—			
27	Average number	480	.....	7
28	Wages	$124,004	.....	$1,402
	Children, under 16 years—			
29	Average number	21	.....	10
30	Wages	$4,500	.....	$2,300
	Average number of wage-earners, including pieceworkers, employed during each month:			
	Men, 16 years and over—			
31	January	1,458	8	99
32	February	1,576	8	105
33	March	1,557	8	107
34	April	1,492	8	107
35	May	1,424	8	102
36	June	1,422	8	97
37	July	1,260	8	87
38	August	1,353	8	92
39	September	1,401	8	93
40	October	1,401	8	104
41	November	1,429	8	100
42	December	1,327	8	116
	Women, 16 years and over—			
43	January	503	.....	8
44	February	525	.....	8
45	March	528	.....	8
46	April	483	.....	8
47	May	491	.....	4
48	June	485	.....	8
49	July	398	.....	8
50	August	464	.....	9
51	September	464	.....	9
52	October	483	.....	6
53	November	503	.....	6
54	December	433	.....	6
	Children, under 16 years—			
55	January	18	.....	10
56	February	18	.....	10
57	March	19	.....	10
58	April	21	.....	10
59	May	22	.....	10
60	June	21	.....	10
61	July	21	.....	10
62	August	22	.....	10
63	September	22	.....	10
64	October	22	.....	10
65	November	24	.....	10
66	December	22	.....	10
	Skilled operatives, average number:			
	Spinners—			
67	Men, 16 years and over	11	.....	.....
	Finishers—			
68	Men, 16 years and over	3	.....	.....
	Machinery:			
69	Sets of woolen cards	356	2	7
70	Spindles, number	3,288	.....	288
	Spinning—			
71	Woolen	3,288	.....	288
72	Looms, on woolen or worsted goods, number	20	.....	20
	Narrow, under 50 inches reed space—			
73	On woolen goods	20	.....	20
	Miscellaneous expenses:			
74	Total	$293,149	$586	$33,601
75	Rent of works	$40,130	$384	$4,345
76	Taxes, not including internal revenue	$21,042	$67	$1,559
77	Rent of offices, insurance, interest, and all sundry expenses not hitherto included	$219,561	$135	$18,721
78	Contract work	$12,416	.....	$8,976

BY STATES: 1900.

Massachusetts.	New Jersey.	New York.	Ohio.	Pennsylvania.	Rhode Island.	Vermont.	All other states.[1]	
29	4	9	6	26	9	3	9	1
20	.....	7	1	16	5	1	4	2
4	1	2	.....	10	4	2	2	3
5	3	.....	5	.....	.....	.....	3	4
$769,294	$538,936	$329,861	$1,397,746	$972,070	$228,930	$245,982	$285,811	5
$82,085	$49,290	$18,700	$120,500	$83,650	$6,500	$11,200	$31,200	6
$188,858	$98,953	$45,150	$138,000	$145,600	$21,700	$25,800	$32,000	7
$215,885	$128,751	$77,152	$408,700	$254,181	$114,605	$15,500	$81,000	8
$282,466	$261,942	$188,859	$730,546	$488,639	$86,125	$193,482	$141,611	9
29	.....	11	.....	19	16	4	6	10
30	15	7	35	34	3	1	6	11
$34,336	$30,100	$6,130	$55,225	$24,746	$3,400	$1,000	$3,576	12
5	6	.....	6	.....	.....	.....	1	13
$5,850	$22,300	.....	$16,000	.....	.....	.....	$312	14
25	9	7	29	34	3	1	5	15
$28,486	$7,800	$6,130	$39,225	$24,746	$3,400	$1,000	$3,264	16
24	9	6	23	32	3	1	5	17
$28,086	$7,800	$5,630	$37,025	$24,110	$3,400	$1,000	$3,264	18
1	.....	1	6	2	.....	.....	.....	19
$400	.....	$500	$2,200	$636	.....	.....	.....	20
449	222	173	562	413	156	126	172	21
234	102	166	339	322	98	70	80	22
307	156	167	474	368	131	93	104	23
$127,715	$56,027	$65,739	$164,579	$148,240	$56,397	$45,345	$36,803	24
260	128	137	229	285	127	67	83	25
$114,492	$49,445	$58,695	$102,736	$126,604	$55,096	$38,142	$30,833	26
44	28	28	245	80	4	26	18	27
$12,794	$6,582	$6,781	$61,843	$21,064	$1,301	$7,203	$5,034	28
3	.....	2	.....	3	.....	.....	3	29
$429	.....	$263	.....	$572	.....	.....	$936	30
273	129	141	253	292	131	69	63	31
336	131	141	280	296	132	68	79	32
320	110	141	285	299	137	75	75	33
306	113	141	281	273	136	58	69	34
289	105	141	249	280	134	54	62	35
253	115	138	233	294	122	67	95	36
200	113	115	159	282	114	74	108	37
220	132	137	195	286	114	65	104	38
237	142	141	195	294	120	69	102	39
214	146	137	230	289	123	67	83	40
230	155	138	229	267	131	72	99	41
242	142	137	154	266	133	63	66	42
40	26	28	263	84	6	28	20	43
47	28	28	272	82	2	33	25	44
58	26	28	270	85	2	33	18	45
47	29	28	270	75	2	17	7	46
44	28	28	263	85	2	22	15	47
41	22	28	265	80	2	20	19	48
33	25	27	182	75	2	25	21	49
46	32	29	228	76	3	25	16	50
48	28	28	227	75	3	26	20	51
34	28	28	262	74	4	27	20	52
41	31	28	261	80	6	26	24	53
46	34	32	181	87	8	28	11	54
1	.....	1	.....	3	.....	.....	3	55
1	.....	1	.....	3	.....	.....	3	56
2	.....	1	.....	3	.....	.....	3	57
4	.....	1	.....	3	.....	.....	3	58
5	.....	1	.....	3	.....	.....	3	59
4	.....	1	.....	3	.....	.....	3	60
3	.....	2	.....	3	.....	.....	3	61
4	.....	2	.....	3	.....	.....	3	62
4	.....	2	.....	3	.....	.....	3	63
4	.....	2	.....	3	.....	.....	3	64
4	.....	4	.....	3	.....	.....	3	65
4	.....	2	.....	3	.....	.....	3	66
.....	.....	.....	.....	2	.....	.....	9	67
.....	.....	.....	.....	3	.....	.....	.....	68
58	48	22	57	62	63	9	28	69
.....	.....	.....	.....	480	.....	.....	2,520	70
.....	.....	.....	.....	480	.....	.....	2,520	71
.....	.....	.....	.....	.....	.....	.....	.....	72
.....	.....	.....	.....	.....	.....	.....	.....	73
$50,027	$25,798	$18,122	$69,259	$57,728	$23,828	$7,609	$6,591	74
$7,368	$250	$2,440	$540	$11,023	$11,290	.....	$2,490	75
$5,372	$1,457	$1,134	$5,495	$3,513	$824	$1,168	$453	76
$37,287	$22,176	$14,548	$63,224	$40,667	$11,714	$6,441	$3,648	77
.....	$915	.....	.....	$2,525	.....	.....	.....	78

[1] Includes establishments distributed as follows: Georgia, 1; Illinois, 2; Indiana, 1; Maine, 2, New Hampshire, 2; Wisconsin, 1.

TABLE 39.—SHODDY,

		United States.	California.	Connecticut.
	Materials used.			
79	Total cost	$4,875,192	$9,156	$362,438
	Wool—			
80	Foreign, in condition purchased, pounds	17,500		
81	Cost	$8,700		
82	Domestic, in condition purchased, pounds	404,849		
83	Cost	$118,399		
84	Foreign and domestic, etc., scoured, pounds	242,997		
	Animal hair and fur—			
85	Camel, alpaca, and vicuna hair, pounds	2,000		
86	Cost	$160		
87	Buffalo, cow, and other animal hair and fur, pounds	104,000		
88	Cost	$10,285		
89	Cotton, bales	345		
90	Pounds	172,652		
91	Cost	$15,202		
	Materials not made in mill—			
92	Wool waste and noils, pounds	4,216,428		790,585
93	Cost	$689,412		$50,925
94	Camel, alpaca, and vicuna noils, pounds	11,600		
95	Cost	$3,600		
96	Mohair noils, pounds	8,000		
97	Cost	$960		
98	Cotton waste, pounds	158,000		
99	Cost	$4,875		
100	Pieces, clippings, mill waste, old material, rags, etc., pounds	79,623,312	1,200,000	5,594,984
101	Cost	$3,558,706	$5,850	$272,416
102	Soap, pounds	64,350		
103	Cost	$2,396		
104	Oil, for repairing wool for cards or combs	440,342		57,313
105	Cost	$88,843		$8,647
106	Chemicals and dyestuffs	$111,095		$8,393
107	Fuel	$115,365	$1,386	$8,130
108	Rent of power and heat	$6,336	$1,500	
109	Mill supplies	$39,317	$360	$3,903
110	All other materials	$46,026		
111	Freight	$55,515	$60	$10,024
	Products:			
112	Total value	$6,730,974	$17,678	$537,733
	Partly manufactured products for sale—			
113	Woolen yarn, all wool, pounds	75,000		
114	Value	$30,000		
115	Woolen or worsted yarn, union or merino, cotton mixed, pounds	157,775		
116	Value	$37,077		
117	Wool card rolls, pounds	5,000		
118	Value	$2,000		
119	Noils, pounds	333,713		333,713
120	Value	$40,807		$40,807
121	Waste, pounds	1,608,470		12,500
122	Value	$148,043		$427
123	Shoddy, pounds	39,014,661	1,150,500	2,860,503
124	Value	$5,388,378	$17,678	$285,382
125	Wool extract, pounds	4,980,825		1,720,962
126	Value	$620,504		$154,235
127	Flocks, pounds	2,080,758		561,031
128	Value	$131,894		$41,748
129	All other products	$41,610		
130	Amount received for contract work	$290,661		$15,134
	Comparison of products:			
131	Number of establishments reporting for both years	82	3	6
132	Value for census year	$5,846,380	$17,678	$536,997
133	Value for preceding business year	$5,104,746	$17,580	$557,613
	Power:			
134	Number of establishments reporting	104	2	7
135	Total horsepower	11,560	115	1,294
	Owned—			
	Engines—			
136	Steam, number	90	1	11
137	Horsepower	7,123	50	610
138	Gas or gasoline, number	2	1	
139	Horsepower	45	25	
140	Water wheels, number	63		10
141	Horsepower	4,069		684
142	Electric motors, number	3		
143	Horsepower	105		
144	Rented, horsepower	218	40	
145	Furnished to other establishments, horsepower	75		
	Establishments classified by number of persons employed, not including proprietors and firm members:			
146	Total number of establishments	105	3	7
147	No employees	3		
148	Under 5	24	3	2
149	5 to 20	41		1
150	21 to 50	24		4
151	51 to 100	9		
152	101 to 250	3		
153	251 to 500	1		

[1] Includes establishments distributed as follows: Georgia, 1; Illinois, 2; Indiana, 1; Maine, 2; New Hampshire, 2; Wisconsin, 1.

BY STATES: 1900—Continued.

Massachusetts.	New Jersey.	New York.	Ohio.	Pennsylvania.	Rhode Island.	Vermont.	All other states.[1]	
$685,123	$526,492	$310,783	$1,077,529	$1,069,944	$399,126	$268,712	$165,889	79
.....	17,500	.....	.....	.....	.....	.....	.....	80
.....	$8,700	.....	.....	.....	.....	.....	.....	81
7,000	37,500	.....	324,094	3,500	.....	.....	32,755	82
$2,800	$12,200	.....	$89,427	$1,050	.....	.....	$12,922	83
7,000	55,000	.....	150,047	3,500	.....	.....	27,450	84
.....	.....	.....	2,000	.....	.....	.....	.....	85
.....	.....	.....	$160	.....	.....	.....	.....	86
.....	103,000	.....	1,000	.....	.....	.....	.....	87
.....	$10,250	.....	$35	.....	.....	.....	.....	88
.....	.....	150	108	.....	.....	40	47	89
.....	.....	75,000	53,986	.....	.....	20,000	23,666	90
.....	.....	$5,250	$4,793	.....	.....	$900	$4,259	91
305,500	1,261,421	100,000	66,922	1,392,000	300,000	.....	.....	92
$69,210	$189,715	$10,000	$11,102	$288,460	$70,000	.....	.....	93
.....	11,600	.....	.....	.....	.....	.....	.....	94
.....	$3,600	.....	.....	.....	.....	.....	.....	95
.....	.....	.....	.....	8,000	.....	.....	.....	96
.....	.....	.....	.....	$960	.....	.....	.....	97
.....	.....	.....	.....	.....	.....	.....	158,000	98
.....	.....	.....	.....	.....	.....	.....	$4,875	99
11,205,073	5,933,355	22,940,559	8,992,053	11,871,628	3,311,607	6,616,000	1,958,053	100
$526,164	$267,001	$249,411	$866,740	$705,764	$287,800	$252,234	$125,326	101
2,500	5,200	16,700	13,000	1,950	25,000	.....	.....	102
$65	$245	$636	$475	$75	$900	.....	.....	103
75,207	27,500	17,502	102,433	123,288	16,000	14,800	6,299	104
$19,946	$6,024	$3,128	$12,893	$24,272	$6,760	$5,920	$1,253	105
$16,260	$4,560	$11,800	$39,390	$12,950	$10,397	$2,595	$4,750	106
$26,013	$11,665	$9,933	$21,910	$16,808	$9,727	$5,678	$4,115	107
.....	.....	$410	.....	$926	$3,060	.....	$500	108
$10,285	$2,500	$2,345	$7,621	$6,124	$2,850	$1,125	$2,204	109
$4,107	$6,017	$12,814	$18,900	$3,638	$45	$110	$395	110
$10,273	$4,015	$5,056	$4,083	$8,917	$7,647	$150	$5,290	111
$988,189	$685,048	$443,529	$1,478,712	$1,448,886	$515,643	$382,852	$232,704	112
.....	.....	.....	.....	75,000	.....	.....	.....	113
.....	.....	.....	.....	$30,000	.....	.....	.....	114
.....	.....	.....	.....	.....	.....	.....	157,775	115
.....	.....	.....	.....	.....	.....	.....	$37,077	116
.....	.....	5,000	.....	.....	.....	.....	.....	117
.....	.....	$2,000	.....	.....	.....	.....	.....	118
.....	.....	.....	.....	.....	.....	.....	.....	119
.....	.....	.....	.....	.....	.....	.....	.....	120
.....	142,000	100,000	279,160	1,074,810	.....	.....	.....	121
.....	$29,950	$10,000	$24,150	$83,516	.....	.....	.....	122
4,543,254	2,459,233	4,567,209	5,914,245	11,655,149	1,854,820	2,633,000	1,376,748	123
$622,454	$589,566	$416,105	$1,327,939	$1,282,599	$368,964	$323,792	$153,899	124
1,922,863	.....	10,000	900,000	.....	17,003	420,000	.....	125
$274,069	.....	$9,000	$126,000	.....	$500	$56,700	.....	126
79,180	500,547	.....	.....	32,000	908,000	.....	.....	127
$5,382	$30,032	.....	.....	$1,920	$52,812	.....	.....	128
.....	$35,500	.....	.....	.....	.....	$1,360	$4,750	129
$86,284	.....	$6,424	$623	$50,851	$93,367	$1,000	$36,978	130
20	3	7	5	22	9	3	4	131
$894,775	$380,948	$291,529	$1,460,712	$1,196,200	$515,643	$382,852	$169,046	132
$786,024	$275,092	$230,509	$1,330,010	$942,115	$482,582	$292,821	$190,400	133
29	4	9	6	26	9	3	9	134
3,622	790	699	1,050	1,632	741	882	735	135
21	5	4	6	29	4	4	5	136
1,952	725	400	1,035	1,454	275	307	315	137
1	.....	.....	.....	.....	.....	.....	.....	138
20	.....	.....	.....	.....	.....	.....	.....	139
30	1	6	.....	1	5	5	5	140
1,650	65	299	.....	50	391	510	420	141
.....	.....	.....	1	.....	1	1	.....	142
.....	.....	.....	15	.....	25	65	.....	143
.....	.....	.....	.....	128	50	.....	.....	144
.....	.....	.....	.....	40	35	.....	.....	145
29	4	9	6	26	9	3	9	146
2	.....	1	.....	.....	.....	.....	.....	147
9	.....	2	1	6	.....	.....	1	148
11	.....	2	.....	12	7	2	6	149
5	1	3	2	6	2	.....	1	150
1	3	1	1	2	.....	.....	1	151
1	.....	.....	1	.....	.....	1	.....	152
.....	.....	.....	1	.....	.....	.....	.....	153

TABLE 40.—FUR HATS, BY STATES: 1900.

	United States.	Connecticut.	Massachusetts.	New Jersey.	New York.	Pennsylvania.	All other states.[1]
Number of establishments	171	58	11	59	15	20	8
Character of organization:							
Individual	69	16	2	30	6	11	4
Firm and limited partnership	72	31	7	19	6	7	2
Incorporated company	30	11	2	10	3	2	2
Capital:							
Total	$16,701,308	$3,197,551	$1,467,700	$2,932,311	$3,050,381	$5,726,259	$327,106
Land	$1,501,514	$113,788	$46,356	$242,930	$246,000	$848,940	$3,500
Buildings	$3,023,693	$323,388	$319,101	$484,751	$476,746	$1,368,207	$51,500
Machinery, tools, and implements	$3,043,261	$714,116	$363,939	$500,950	$634,112	$736,849	$93,295
Cash and sundries	$9,132,840	$2,046,259	$738,304	$1,703,680	$1,693,523	$2,772,263	$178,811
Proprietors and firm members	208	85	18	66	12	22	5
Salaried officials, clerks, etc.:							
Total number	726	173	54	154	135	180	30
Total salaries	$943,998	$172,780	$55,659	$186,266	$224,354	$269,619	$35,320
Officers of corporations—							
Number	76	26	4	26	8	6	6
Salaries	$242,734	$39,524	$6,000	$55,320	$79,770	$54,120	$8,000
General superintendents, managers, clerks, etc.—							
Total number	650	147	50	128	127	174	24
Total salaries	$701,264	$133,256	$49,659	$130,946	$144,584	$215,499	$27,320
Men—							
Number	585	133	45	117	116	154	20
Salaries	$670,355	$125,960	$48,058	$125,598	$139,044	$206,135	$25,560
Women—							
Number	65	14	5	11	11	20	4
Salaries	$30,909	$7,296	$1,601	$5,348	$5,540	$9,364	$1,760
Wage-earners, including piece workers, and total wages:							
Greatest number employed at any one time during the year	22,008	5,916	2,380	5,635	4,499	3,101	477
Least number employed at any one time during the year	16,398	4,171	1,377	3,925	3,886	2,622	377
Average number	18,880	4,868	1,823	4,745	4,133	2,890	421
Total wages	$9,119,264	$2,414,561	$790,786	$2,487,067	$2,079,464	$1,187,272	$160,114
Men, 16 years and over—							
Average number	13,187	3,405	976	3,507	2,960	2,043	296
Wages	$7,231,777	$1,966,174	$514,262	$2,071,822	$1,566,907	$984,782	$127,830
Women, 16 years and over—							
Average number	5,436	1,458	834	1,199	1,112	714	119
Wages	$1,840,454	$447,029	$274,254	$405,795	$499,772	$182,606	$30,998
Children, under 16 years—							
Average number	257	5	13	39	61	133	6
Wages	$47,033	$1,358	$2,270	$9,450	$12,785	$19,884	$1,286
Average number of wage-earners, including pieceworkers, employed during each month:							
Men, 16 years and over—							
January	12,989	3,369	1,025	3,274	3,002	1,990	329
February	13,229	3,521	1,060	3,335	2,979	2,009	325
March	13,459	3,706	1,054	3,358	2,999	2,023	319
April	12,781	3,314	994	3,440	2,736	2,025	272
May	12,451	3,098	860	3,470	2,719	2,041	263
June	12,470	2,879	880	3,432	2,992	2,040	247
July	13,313	3,592	916	3,547	2,961	2,000	297
August	14,018	3,906	1,047	3,735	2,988	2,035	307
September	14,101	3,931	1,076	3,692	3,005	2,080	317
October	13,360	3,262	975	3,771	2,973	2,086	293
November	12,825	3,126	891	3,488	2,975	2,052	293
December	13,248	3,160	937	3,540	3,192	2,130	289
Women, 16 years and over—							
January	5,608	1,497	1,047	1,124	1,137	679	124
February	5,819	1,563	1,102	1,170	1,155	705	124
March	5,875	1,607	1,100	1,186	1,147	710	125
April	5,532	1,427	1,027	1,205	1,031	721	124
May	5,226	1,334	842	1,200	1,012	714	124
June	5,087	1,258	706	1,155	1,146	710	112
July	5,265	1,517	676	1,180	1,078	704	110
August	5,484	1,594	730	1,249	1,092	709	110
September	5,548	1,616	720	1,283	1,102	709	118
October	5,294	1,356	701	1,263	1,114	739	121
November	5,129	1,343	636	1,170	1,136	723	121
December	5,365	1,378	723	1,202	1,193	748	121
Children, under 16 years—							
January	253	5	7	39	58	138	6
February	252	5	8	40	58	135	6
March	249	5	8	40	59	131	6
April	250	4	8	39	61	132	6
May	251	3	8	40	60	134	6
June	266	3	23	41	62	131	6
July	266	4	20	41	62	133	6
August	272	7	24	39	62	134	6
September	269	7	22	39	63	132	6
October	254	7	8	39	62	132	6
November	246	6	8	35	61	131	6
December	256	5	8	39	60	138	6
Skilled operatives, average number:							
Weavers—							
Men, 16 years and over	135	.....	.....	.....	.....	135	.....
Finishers—							
Men, 16 years and over	840	248	96	60	214	220	2
Women, 16 years and over	45	9	.....	.....	5	31	.....
Children, under 16 years	1	.....	.....	.....	1	.....	.....
Machinery:							
Formers for fur hats	294	81	19	104	40	46	4
Miscellaneous expenses:							
Total	$1,416,737	$392,152	$97,787	$253,998	$300,185	$351,729	$20,886
Rent of works	$95,217	$30,864	$9,910	$28,912	$11,360	$9,536	$4,635
Taxes, not including internal revenue	$51,566	$11,979	$10,567	$11,622	$8,792	$6,986	$1,620
Rent of offices, insurance, interest, and all sundry expenses not hitherto included	$1,172,011	$313,683	$70,410	$188,682	$269,283	$315,322	$14,631
Contract work	$97,943	$35,626	$6,900	$24,782	$10,750	$19,885	.....

[1] Includes establishments distributed as follows: Delaware, 1; Indiana, 1; Maine, 1; Missouri, 1; Ohio, 1; Rhode Island, 2; West Virginia, 1.

TABLE 40.—FUR HATS, BY STATES: 1900—Continued.

	United States.	Connecticut.	Massachusetts.	New Jersey.	New York.	Pennsylvania.	All other states.[1]
Materials used:							
Total cost	$13,513,668	$3,685,748	$1,389,546	$3,636,521	$2,607,454	$1,866,866	$327,533
Animal hair and fur—							
Buffalo, cow, and other animal hair and fur, pounds.	6,166,269	1,499,767	456,593	1,897,113	1,281,452	817,311	214,033
Cost	$6,376,991	$1,463,491	$542,035	$2,076,259	$1,163,340	$933,748	$198,118
Yarns not made in mill—							
Cotton, pounds	2,052					2,052	
Cost	$3,276					$3,276	
Spun silk, pounds	3,541					3,541	
Cost	$24,984					$24,984	
Fur hat bodies, and hats in the rough, dozens	148,212	61,726	29,338	22,711	24,620	5,045	4,772
Cost	$882,986	$381,362	$139,889	$113,197	$171,660	$42,341	$34,537
All other materials which are components of the product	$3,884,680	$993,708	$487,573	$954,107	$773,214	$602,407	$73,671
Soap, pounds	34,065				13,500	5,565	15,000
Cost	$1,535				$560	$225	$750
Chemicals and dyestuffs	$656,794	$272,635	$62,930	$121,917	$117,681	$77,317	$4,314
Fuel	$376,366	$117,839	$26,316	$118,302	$65,130	$40,957	$7,822
Rent of power and heat	$6,310	$2,045	$1,012	$400	$225	$1,658	$970
Mill supplies	$72,793	$24,918	$1,140	$14,983	$14,568	$11,114	$3,070
All other materials	$1,144,685	$392,809	$120,540	$220,219	$289,665	$119,624	$1,828
Freight	$82,268	$36,941	$5,111	$17,137	$11,411	$9,215	$2,453
Products:							
Total value	$27,811,187	$7,546,882	$2,630,964	$7,211,229	$5,602,458	$4,243,352	$576,302
Hats—							
Wool hats, dozens	180					180	
Value	$4,320					$4,320	
Fur hats, dozens	1,882,372	497,683	227,032	590,939	226,061	280,880	59,777
Value	$25,385,506	$6,543,736	$2,244,941	$6,773,402	$5,052,570	$4,203,169	$567,688
Partly manufactured products for sale—							
Waste, pounds	160,950				160,950		
Value	$3,219				$3,219		
Fur hat bodies and hats in the rough, dozens	165,010	153,188	4,322	7,500			
Value	$992,730	$946,957	$8,273	$37,500			
Value of all other products	$933,493	$3,818	$377,750	$2,040	$541,710	$975	$7,200
Received for contract work	$491,919	$52,371		$398,287	$4,959	$34,888	$1,414
Comparison of products:							
Number of establishments reporting for both years	146	49	10	53	10	18	6
Value for census year	$25,505,780	$7,163,221	$2,500,104	$6,736,546	$4,781,589	$3,774,839	$549,481
Value for preceding business year	$22,950,789	$6,359,757	$2,143,770	$6,430,270	$4,287,820	$3,266,571	$462,601
Power:							
Number of establishments reporting	131	49	8	44	10	15	5
Total horsepower	12,625	3,372	1,005	4,077	1,941	1,883	347
Owned—							
Engines—							
Steam, number	143	51	9	45	16	19	3
Horsepower	11,570	3,216	835	3,684	1,816	1,694	325
Gas or gasoline, number	3		1	1	1		
Horsepower	38		10	8	20		
Water wheels, number	1	1					
Horsepower	25	25					
Electric motors, number	30	1	3	7	3	15	1
Horsepower	782	2	150	368	101	146	15
Rented—							
Electric horsepower	79		10	17	4	43	5
Other kind, horsepower	131	129					2
Furnished to other establishments, horsepower	62			62			
Establishments classified by number of persons employed, not including proprietors and firm members:							
Total number of establishments	171	58	11	59	15	20	8
No employees	1			1			
Under 5	22	4	1	8	4	3	2
5 to 20	30	11	2	7	2	5	3
21 to 50	33	10		16	1	5	1
51 to 100	23	12	1	9		1	
101 to 250	32	14	2	11	2	2	1
251 to 500	22	7	4	5	3	2	1
501 to 1,000	6		1	2	2	1	
Over 1,000	2				1	1	

[1] Includes establishments distributed as follows: Delaware, 1; Indiana, 1; Maine, 1; Missouri, 1; Ohio, 1; Rhode Island, 2; West Virginia, 1.

TABLE 41.—HOSIERY AND KNIT GOODS: COMPARATIVE SUMMARY

	STATES.	Year.	Number of establishments.	Capital.	SALARIED OFFICIALS, CLERKS, ETC.		AVERAGE NUMBER OF WAGE-EARNERS AND TOTAL WAGES.					MACHINERY.					
					Number.	Salaries.	Total.		Men, 16 years and over.	Women, 16 years and over.	Children under 16 years.	Cards.	Combing machines.	Knitting machines	Sewing machines.	Looms	Spindles.
							Average number.	Wages.									
1	United States	1900	921	$81,860,604	2,809	$3,124,798	83,387	$24,358,627	21,154	53,565	8,668	1,161	15	89,047	24,535	133	521,871
2		1890	796	50,607,738	[4]1,621	[4]1,685,153	59,388	16,578,119	14,846	40,826	3,916	1,183	16	36,327	(3)	119	389,353
3		1880	359	15,579,591	(2)	(2)	28,885	6,701,475	7,517	17,707	3,661	592	3	12,659	4,569	1,964	143,023
4		1870	248	10,931,260	(2)	(2)	14,788	4,429,085	4,252	7,991	2,545	519	(3)	5,625	1,668	458	148,385
5		1860	197	4,035,510	(2)	(2)	9,103	1,661,972	2,780	6,323	[2]	[2]	(3)	(3)	(3)	(3)	(3)
6		[4]1850	85	544,735	(2)	(2)	2,325	360,336	835	1,490	[2]	[2]	(3)	(3)	(3)	(3)	(3)
7	New England states	1900	133	19,014,126	415	559,311	15,074	4,879,179	4,340	9,941	793	297	15	32,860	4,004	.....	233,253
8		1890	168	14,538,511	295	315,455	13,208	4,029,429	3,553	9,188	467	329	9	8,638	.....	5	147,825
9		1880	103	5,156,306	.....	.....	7,818	1,918,715	2,130	4,969	719	207	.....	2,626	816	1,085	46,047
10		1870	84	4,021,660	.....	.....	5,280	1,808,335	1,678	3,059	543	236	.....	2,466	760	214	82,656
11		1860	47	1,534,700	.....	.....	2,165	487,440	815	1,350	.....	.....	.....	.....	.....	.....	.....
12	Maine	1900	3	9,000	.....	.....	37	7,425	4	31	2	.....	.....	126	3	.....	.....
13		1890	4	28,095	3	1,950	257	28,215	5	252	.....	.....	.....	91	.....	.....	.....
14		1880	1	500	.....	.....	21	801	1	20	.....	.....	.....	.....	.....	.....	.....
15		[5]1870	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
16		[5]1860	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
17	New Hampshire	1900	22	2,525,286	51	58,011	2,492	790,558	890	1,514	88	74	.....	23,174	348	.....	26,867
18		1890	37	2,706,065	57	57,611	3,121	931,519	1,008	2,037	76	112	.....	3,032	.....	.....	36,526
19		1880	24	1,224,000	.....	.....	1,753	536,117	540	1,098	115	68	.....	992	118	147	17,540
20		1870	28	855,460	.....	.....	1,081	405,003	344	624	113	58	.....	832	102	20	17,175
21		1860	12	133,000	.....	.....	488	76,188	138	350	.....	.....	.....	.....	.....	.....	.....
22	Vermont	1900	14	1,589,786	32	42,024	1,041	389,667	387	651	3	40	.....	633	494	.....	11,076
23		1890	10	754,882	13	13,759	705	256,085	262	438	5	37	.....	221	.....	.....	9,584
24		1880	6	492,000	.....	.....	383	101,037	138	227	18	22	.....	69	94	.....	3,805
25		1870	7	303,000	.....	.....	331	90,179	89	216	26	23	.....	49	53	.....	26,300
26		1860	2	21,500	.....	.....	93	15,792	30	63	.....	.....	.....	.....	.....	.....	.....
27	Massachusetts	1900	54	6,288,672	166	212,753	6,667	2,091,258	1,658	4,549	460	39	3	5,003	1,855	.....	108,938
28		1890	74	4,497,940	113	102,630	4,562	1,392,630	1,025	3,407	130	52	.....	3,344	.....	5	40,822
29		1880	57	1,467,375	.....	.....	3,411	608,067	786	2,413	212	38	.....	813	257	545	9,028
30		1870	32	1,570,500	.....	.....	2,415	848,864	844	1,404	167	79	.....	1,116	312	180	19,331
31		1860	15	155,200	.....	.....	388	94,692	166	222	.....	.....	.....	.....	.....	.....	.....
32	Rhode Island	1900	15	2,452,044	65	87,223	1,594	469,193	435	1,015	144	10	3	1,262	316	.....	6,836
33		1890	16	1,728,618	34	33,671	1,504	453,679	332	1,023	149	14	2	755	.....	.....	15,825
34		1880	1	6,000	.....	.....	39	8,400	6	24	9	.....	.....	32	7	4	.....
35		1870	3	133,000	.....	.....	120	33,200	37	64	19	6	.....	33	.....	5	1,800
36		[5]1860	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
37	Connecticut	1900	25	6,149,338	101	159,300	3,243	1,131,078	966	2,181	96	134	9	2,662	988	.....	79,536
38		1890	27	4,822,911	75	105,834	3,059	967,301	921	2,031	107	114	7	1,195	.....	.....	45,068
39		1880	14	1,966,431	.....	.....	2,211	664,293	659	1,187	365	79	.....	720	340	389	15,674
40		1870	14	1,159,700	.....	.....	1,333	431,089	364	751	218	70	.....	436	293	9	18,050
41		1860	18	1,225,000	.....	.....	1,196	300,768	481	715	.....	.....	.....	.....	.....	.....	.....
42	Middle states	1900	588	48,531,122	1,601	1,671,494	51,115	15,479,047	12,799	32,979	5,337	731	116	40,407	17,592	133	231,594
43		1890	460	30,231,762	1,003	1,029,130	36,820	10,544,998	9,967	24,076	2,777	779	7	20,838	.....	121	213,023
44		1880	190	9,883,486	.....	.....	18,201	4,451,850	5,046	10,645	2,510	378	3	8,423	3,681	833	95,316
45		1870	141	6,873,300	.....	.....	9,365	2,596,360	2,524	4,843	1,998	282	.....	3,091	906	213	65,717
46		1860	134	2,476,210	.....	.....	6,888	1,160,624	1,928	4,960	.....	.....	.....	.....	.....	.....	.....
47	New York	1900	242	30,203,640	805	930,764	26,470	8,964,097	8,327	17,219	924	674	116	11,666	12,282	.....	191,582
48		1890	201	19,608,331	471	511,739	19,828	5,925,569	6,413	12,590	825	791	4	5,434	.....	78	186,057
49		1880	75	5,334,876	.....	.....	7,858	2,036,076	2,389	4,470	999	320	.....	1,311	1,953	103	71,008
50		1870	60	3,318,700	.....	.....	3,741	1,122,890	1,061	1,899	781	230	.....	746	620	20	49,441
51		1860	22	1,102,500	.....	.....	2,701	392,924	597	2,104	.....	.....	.....	.....	.....	.....	.....
52	New Jersey	1900	16	1,973,482	61	73,043	1,841	446,608	602	1,087	152	26	.....	1,335	382	.....	8,408
53		1890	15	1,352,143	27	30,036	1,250	312,564	373	760	117	33	.....	694	.....	.....	9,548
54		1880	8	804,570	.....	.....	1,070	239,761	320	604	146	23	.....	343	75	.....	6,048
55		1870	4	575,500	.....	.....	722	193,200	136	271	315	13	.....	11	138	147	6,480
56		1860	7	477,200	.....	.....	1,491	225,060	329	1,162	.....	.....	.....	.....	.....	.....	.....
57	Pennsylvania	1900	319	15,743,981	688	638,483	21,540	5,825,783	3,725	13,739	4,076	31	.....	26,120	4,612	133	31,604
58		1890	236	9,121,632	488	470,455	15,453	4,262,299	3,159	10,524	1,770	45	3	14,492	.....	43	17,418
59		1880	106	3,743,790	.....	.....	9,272	2,175,913	2,337	5,570	1,365	35	3	6,769	1,653	730	18,260
60		1870	76	2,979,000	.....	.....	4,899	1,280,270	1,325	2,672	902	39	.....	2,332	148	46	9,796
61		1860	103	895,460	.....	.....	2,692	541,116	998	1,694	.....	.....	.....	.....	.....	.....	.....
62	Delaware	1900	7	298,511	19	14,686	582	123,103	85	408	89	.....	.....	674	246	.....	.....
63		[6]1890	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
64		[5]1880	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
65		[5]1870	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
66		[5]1860	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
67	Maryland [6]	1900	4	311,508	28	14,518	682	119,456	60	526	96	.....	.....	612	70	.....	.....
68		1890	8	149,656	17	16,900	289	44,566	22	202	65	.....	.....	218	.....	.....	.....
69		1880	1	250	.....	.....	1	100	.....	1	.....	.....	.....	.....	.....	.....	.....
70		1870	1	100	.....	.....	3	.....	2	1	.....	.....	.....	2	.....	.....	.....
71		1860	2	1,050	.....	.....	4	1,524	4	.....	.....	.....	.....	.....	.....	.....	.....

BY STATES, ARRANGED GEOGRAPHICALLY, 1850–1900.

Miscellaneous expenses.	Cost of materials used.	PRINCIPAL MATERIALS—QUANTITIES CONSUMED. Wool in condition purchased. Total (pounds).	Foreign (pounds).	Domestic (pounds).	Yarns not made in mill. Merino (pounds).	Woolen (pounds).	Worsted (pounds).	Raw cotton and cotton warp and yarn not made in mill (pounds).	Animal hair and fur and noil's not made in mill (pounds).	Shoddy not made in mill (pounds).	Value of products.	
$6,599,865	$51,071,859	17,953,907	3,446,838	14,507,069	1,981,484	2,621,893	5,823,215	181,271,369	1,093,854	3,770,626	$95,482,566	1
3,627,245	35,861,585	21,639,393	2,734,304	18,905,089	(2)	6,386,370	4,146,035	64,681,466	424,496	4,735,144	67,241,013	2
(3)	15,210,951	8,594,895	448,758	8,146,137	67,561	3,753,566	750,255	28,485,238	66,929	1,523,263	29,167,227	3
(3)	9,835,823	5,596,955	292,300	5,304,655	(2)	2,229,777	(2)	13,652,225	(2)	189,857	18,411,564	4
(3)	3,202,317	2,927,626	(2)	(2)	(2)	(2)	(2)	3,892,342	(2)	(2)	7,280,606	5
(3)	415,113	(3)	(3)	(3)	(2)	(2)	(2)	(2)	(2)	(2)	1,028,102	6
1,114,174	9,325,415	5,716,460	1,408,206	4,308,254	141,633	444,321	1,493,439	26,589,672	93,741	922,558	17,834,673	7
929,336	8,661,685	8,398,436	1,035,183	7,363,253	.....	869,432	1,020,615	12,214,509	128,525	1,081,598	16,034,801	8
.....	4,034,873	4,348,024	209,440	4,138,584	.....	674,986	106,201	3,977,864	26,779	366,843	7,912,916	9
.....	3,282,123	2,483,733	141,500	2,342,233	.....	315,419	.....	4,033,943	.....	10,000	6,910,797	10
.....	1,092,358	1,457,260	.....	.....	.....	.....	.....	1,693,001	.....	.....	2,374,242	11
6,389	10,810	.....	.....	.....	.....	18,000	.....	.....	.....	.....	29,075	12
1,019	33,839	.....	.....	.....	.....	29,075	12,320	6,000	.....	.....	76,603	13
.....	1,800	.....	.....	.....	.....	2,000	.....	.....	.....	.....	3,000	14
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	15
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	16
175,118	1,319,170	820,271	109,163	711,108	38,000	107,426	270,820	3,173,765	.....	668,821	2,592,829	17
241,201	1,777,595	3,456,174	243,850	3,212,324	.....	96,658	106,478	841,739	4,200	960,998	3,481,922	18
.....	1,249,600	1,756,332	76,000	1,680,332	.....	96,500	2,500	1,102,284	5,000	186,900	2,362,779	19
.....	881,646	880,750	40,500	840,250	.....	.....	.....	946,235	.....	.....	1,757,445	20
.....	338,075	362,120	.....	.....	.....	.....	.....	308,289	.....	.....	573,794	21
108,006	1,115,324	540,934	86,530	454,404	20,878	.....	46,091	2,632,214	.....	161,145	1,834,685	22
63,188	649,004	576,669	66,000	510,669	.....	2,000	.....	666,448	.....	16,882	1,105,958	23
.....	359,938	401,333	.....	401,333	.....	1,200	500	406,539	.....	2,525	595,270	24
.....	191,219	146,289	.....	146,289	.....	.....	.....	384,789	.....	.....	551,129	25
.....	61,840	130,000	.....	.....	.....	.....	.....	50,000	.....	.....	102,800	26
528,103	2,910,640	1,146,940	2,000	1,144,940	44,604	128,631	411,468	13,526,843	.....	65,075	6,620,257	27
315,786	2,552,705	1,812,076	52,989	1,759,087	.....	456,440	278,853	4,466,466	.....	44,500	5,082,087	28
.....	1,394,748	1,088,684	7,266	1,081,418	.....	502,511	88,619	857,700	.....	8,000	2,483,596	29
.....	1,515,326	904,900	25,000	879,900	.....	249,356	.....	1,849,994	.....	.....	3,213,481	30
.....	132,075	196,000	.....	.....	.....	.....	.....	148,000	.....	.....	314,120	31
90,900	1,766,831	735,548	28,850	706,698	8,989	181,264	531,778	4,196,940	90,566	.....	2,713,850	32
110,720	1,618,621	788,311	140,000	648,311	.....	108,159	445,633	3,337,264	.....	12,218	2,516,664	33
.....	14,838	.....	.....	.....	.....	22,750	.....	.....	.....	.....	36,000	34
.....	68,541	113,000	.....	113,000	.....	.....	.....	30,000	.....	.....	137,000	35
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	36
205,658	2,202,640	2,472,767	1,181,663	1,291,104	29,162	9,000	233,282	3,059,910	3,175	27,517	4,043,977	37
197,422	2,029,921	1,765,206	532,344	1,232,862	.....	177,100	177,331	2,896,593	124,325	47,000	3,771,567	38
.....	1,013,949	1,101,675	126,174	975,501	.....	50,025	14,582	1,611,341	21,779	169,418	2,432,271	39
.....	625,391	438,794	76,000	362,794	.....	66,063	.....	822,925	.....	10,000	1,251,742	40
.....	560,368	769,140	.....	.....	.....	.....	.....	1,186,721	.....	.....	1,383,528	41
4,260,577	32,699,721	7,031,403	1,381,117	5,650,286	934,460	1,393,685	2,948,525	128,244,160	685,885	2,212,261	60,473,407	42
2,242,276	23,059,630	10,083,581	1,081,363	9,002,218	.....	3,188,204	2,741,794	47,428,283	241,049	3,174,904	42,993,045	43
.....	10,254,739	4,006,871	239,318	3,767,553	67,561	2,327,394	614,404	24,305,874	40,150	1,146,420	19,696,588	44
.....	6,505,973	3,112,622	150,800	2,961,822	.....	1,871,183	.....	9,601,982	.....	179,857	11,405,380	45
.....	2,082,344	1,462,866	.....	.....	.....	.....	.....	2,195,341	.....	.....	4,847,984	46
2,199,029	20,218,200	5,528,329	710,834	4,817,495	562,040	902,234	1,585,842	83,449,895	685,885	2,105,354	35,886,048	47
1,389,427	13,669,169	9,024,692	882,065	8,142,627	.....	1,034,837	695,260	27,982,069	215,195	3,069,939	24,776,582	48
.....	5,072,058	2,548,969	186,326	2,362,643	.....	538,467	46,159	16,164,505	40,000	1,062,011	9,899,540	49
.....	3,391,840	2,168,822	150,800	2,018,022	.....	50,500	.....	7,119,839	.....	179,857	5,528,742	50
.....	870,479	689,066	.....	.....	.....	.....	.....	1,348,941	.....	.....	1,944,090	51
122,374	997,110	155,160	88,068	67,092	10,000	43,800	232,157	2,140,832	.....	.....	1,748,148	52
101,146	582,783	404,847	188,839	216,008	.....	113,600	36,629	842,202	10,673	18,623	1,091,403	53
.....	258,043	175,184	5,400	169,784	.....	106,300	3,100	487,026	150	15,553	861,181	54
.....	188,030	230,000	.....	230,000	.....	1,000	.....	216,700	.....	.....	568,900	55
.....	279,952	419,800	.....	.....	.....	.....	.....	766,400	.....	.....	783,456	56
1,884,722	10,928,113	1,347,914	582,215	765,699	350,011	409,163	1,115,863	40,541,727	.....	106,907	21,896,063	57
741,956	8,720,363	654,042	10,459	643,583	.....	1,985,017	1,995,905	18,488,312	15,181	86,342	16,944,237	58
.....	4,924,138	1,282,718	47,592	1,235,126	67,561	1,682,127	565,145	7,654,343	.....	68,856	8,935,147	59
.....	2,925,323	713,800	.....	713,800	.....	1,819,183	.....	2,264,943	.....	.....	5,306,738	60
.....	928,915	354,000	.....	.....	.....	.....	.....	80,000	.....	.....	2,114,315	61
32,471	209,048	.....	.....	.....	.....	.....	.....	1,099,817	.....	.....	429,055	62
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	63
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	64
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	65
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	66
21,981	347,250	.....	.....	.....	12,409	38,488	14,663	1,011,889	.....	.....	514,093	67
9,747	87,315	.....	.....	.....	.....	54,750	14,000	115,700	.....	.....	180,823	68
.....	500	.....	.....	.....	.....	500	.....	.....	.....	.....	720	69
.....	780	.....	.....	.....	.....	500	.....	500	.....	.....	1,000	70
.....	2,998	.....	.....	.....	.....	.....	.....	.....	.....	.....	6,123	71

[1] Includes proprietors and firm members, with their salaries; number only reported in 1900, but not included in this table. (See Table 42.)
[2] Not reported separately.
[3] Not reported.
[4] At the census of 1850 totals for the different states were not published, totals for the United States only being given.
[5] No establishments reported.
[6] Maryland is classed in this table as a Middle state for purposes of comparison.

TABLE 41.—HOSIERY AND KNIT GOODS: COMPARATIVE SUMMARY

	STATES.	Year.	Number of establishments.	Capital.	SALARIED OFFICIALS, CLERKS, ETC.		AVERAGE NUMBER OF WAGE-EARNERS AND TOTAL WAGES.					MACHINERY.					
							Total.		Men, 16 years and over.	Women, 16 years and over.	Children, under 16 years.						
					Number.	Salaries.	Average number.	Wages.				Cards.	Combing machines.	Knitting machines.	Sewing machines.	Looms.	Spindles.
72	Southern states	1900	71	3,522,871	201	$174,678	6,137	$1,115,356	1,480	3,245	1,412	41	.....	5,519	1,014	.....	24,126
73		1890	22	647,099	30	24,708	1,484	288,352	211	894	379	15	.....	795	.....	18	6,353
74		1880	1	5,000	.....	.....	4	700	2	.....	2	.....	.....	1	.....	4	.....
75		1870	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
76		1860	3	2,700	.....	.....	4	1,680	4	.....	.....	.....	.....	.....	.....	.....	.....
77	Virginia	1900	15	978,575	38	36,057	1,845	394,871	601	988	256	34	.....	993	565	.....	12,036
78		[1] 1890	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
79		[2] 1880	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
80		[2] 1870	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
81		[2] 1860	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
82	North Carolina	1900	24	674,869	64	46,224	1,495	255,253	317	735	443	5	.....	1,354	191	.....	2,860
83		1890	5	72,900	5	3,150	179	27,260	19	105	55	.....	.....	136	.....	.....	512
84		[2] 1880	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
85		[2] 1870	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
86		[2] 1860	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
87	South Carolina	1900	6	345,212	15	13,520	359	73,872	73	158	128	.....	.....	785	10	.....	5,620
88		[2] 1890	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
89		[2] 1880	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
90		[2] 1870	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
91		[2] 1860	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
92	Georgia	1900	16	928,887	46	39,467	1,208	200,662	217	682	309	.....	.....	1,078	235	.....	.....
93		1890	4	121,494	11	7,860	338	64,092	43	221	74	2	.....	225	.....	.....	960
94		[2] 1880	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
95		[2] 1870	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
96		[2] 1860	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
97	Kentucky	[2] 1900	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
98		[1] 1890	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
99		[2] 1880	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
100		[2] 1870	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
101		1860	3	2,700	.....	.....	4	1,680	4	.....	.....	.....	.....	.....	.....	.....	.....
102	Tennessee	1900	4	216,950	12	15,300	511	72,980	113	228	170	.....	.....	581	.....	.....	.....
103		[2] 1890	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
104		[2] 1880	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
105		[2] 1870	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
106		[2] 1860	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
107	Alabama	[1] 1900	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
108		1890	3	94,373	3	2,028	409	62,810	22	137	250	2	.....	128	.....	.....	.....
109		[2] 1880	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
110		[2] 1870	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
111		[2] 1860	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
112	Louisiana	[1] 1900	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
113		1890	3	106,600	6	9,150	278	42,691	20	258	.....	.....	.....	169	.....	.....	1,800
114		[2] 1880	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
115		[2] 1870	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
116		[2] 1860	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
117	All other Southern states.	[3] 1900	6	378,378	26	24,110	719	117,718	159	454	106	2	.....	728	13	.....	3,610
118		1890	7	251,732	5	2,520	280	91,499	107	173	.....	11	.....	137	.....	18	3,081
119		1880	1	5,000	.....	.....	4	700	2	.....	2	.....	.....	1	.....	4	.....
120		[2] 1870	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
121		[2] 1860	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
122	Western states	1900	129	10,792,485	592	719,315	11,061	2,885,045	2,535	7,400	1,126	92	.....	10,261	1,925	.....	32,898
123		1890	146	5,190,366	293	315,860	8,076	1,715,340	1,115	6,668	293	60	.....	6,056	.....	5	22,152
124		1880	65	534,799	.....	.....	2,862	330,210	339	2,093	430	7	.....	1,609	72	42	1,660
125		1870	23	36,300	.....	.....	143	24,390	50	89	4	1	.....	68	2	11	12
126		1860	13	21,900	.....	.....	46	12,228	33	13	.....	.....	.....	.....	.....	.....	.....
127	Ohio	1900	24	1,067,937	56	55,356	1,413	354,369	154	1,229	30	10	.....	1,147	170	.....	3,920
128		1890	44	1,071,007	67	68,134	1,831	398,496	107	1,649	75	8	.....	1,574	.....	5	2,456
129		1880	23	187,000	.....	.....	745	94,858	53	574	118	.....	.....	368	4	30	60
130		1870	5	9,400	.....	.....	22	5,250	16	6	.....	.....	.....	7	.....	10	.....
131		1860	11	10,900	.....	.....	36	9,264	23	13	.....	.....	.....	.....	.....	.....	.....
132	Michigan	1900	32	2,135,916	201	187,574	2,509	580,129	498	1,873	138	28	.....	2,828	588	.....	6,686
133		1890	10	560,917	33	34,435	815	173,909	131	683	1	14	.....	678	.....	.....	3,680
134		1880	11	147,389	.....	.....	962	92,324	80	706	176	4	.....	521	9	.....	920
135		[2] 1870	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
136		[2] 1860	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
137	Indiana	1900	7	2,728,306	103	201,085	2,016	703,129	1,032	874	110	27	.....	633	272	.....	8,500
138		1890	9	716,989	27	29,721	935	177,798	281	593	61	18	.....	670	.....	.....	7,392
139		1880	5	45,000	.....	.....	284	24,700	26	201	57	.....	.....	183	5	.....	.....
140		1870	5	4,050	.....	.....	26	540	7	18	1	.....	.....	9	1	.....	.....
141		[2] 1860	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
142	Wisconsin	1900	27	2,558,299	125	150,209	2,722	600,495	341	1,756	625	16	.....	2,832	451	.....	8,694
143		1890	23	1,214,727	57	70,680	2,239	379,144	282	1,852	105	6	.....	1,138	.....	.....	2,800
144		1880	4	10,010	.....	.....	28	3,364	6	20	2	.....	.....	19	4	.....	.....
145		[2] 1870	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
146		[2] 1860	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
147	Illinois	1900	14	1,580,990	46	66,720	1,805	494,285	417	1,233	155	7	.....	1,975	282	.....	3,480
148		1890	35	1,254,576	74	78,301	1,804	466,808	279	1,479	46	14	.....	1,525	.....	.....	5,824
149		1880	14	105,800	.....	.....	707	92,385	160	471	76	3	.....	433	48	11	680
150		1870	3	1,800	.....	.....	27	1,800	4	21	2	1	.....	19	1	.....	12
151		[2] 1860	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

[1] Included in "all other Southern states."
[2] No establishments reported.

BY STATES, ARRANGED GEOGRAPHICALLY, 1850 TO 1900—Continued.

Miscellaneous expenses.	Cost of materials used.	PRINCIPAL MATERIALS—QUANTITIES CONSUMED.									Value of products.	
		Wool in condition purchased.			Yarns not made in mill.			Raw cotton and cotton warp and yarn not made in mill (pounds).	Animal hair and fur and noils not made in mill (pounds).	Shoddy not made in mill (pounds).		
		Total (pounds).	Foreign (pounds).	Domestic (pounds).	Merino (pounds).	Woolen (pounds.)	Worsted (pounds).					
$346,408	$2,798,219	58,000	10,000	48,000	353,580	2,000	72,600	16,584,551		150,007	$5,031,336	72
52,760	459,808	56,500		56,500		200		2,380,475		140,000	973,136	73
	1,700					1,400					2,600	74
												75
	5,900	1,000									11,700	76
119,198	797,818				2,400	2,000	2,600	6,234,312		90,694	1,498,066	67
												78
												79
												80
												81
35,920	504,027							3,436,982		20,000	1,023,150	82
3,097	66,925							277,000			126,875	83
												84
												85
												86
38,887	237,622							1,737,039			392,237	87
												88
												89
												90
												91
72,631	757,430				1,180			3,707,218			1,230,801	92
10,605	70,697							486,340			166,850	93
												94
												95
												96
												97
												98
												99
												100
	5,900	1,000									11,700	101
							20,000	1,099,000			395,150	102
10,270	248,950											103
												104
												105
												106
												107
								545,400			190,725	108
3,422	103,893											109
												110
												111
												112
								420,000			151,180	113
2,480	58,202											114
												115
												116
69,502	252,372	58,000	10,000	48,000	350,000		50,000	370,000		39,813	491,932	117
33,156	160,091	56,500		56,500		200		651,735		140,000	337,506	118
	1,700					1,400					2,600	119
												120
												121
878,706	6,248,504	5,148,044	647,515	4,500,529	551,811	781,887	1,308,651	9,852,986	314,228	485,800	12,143,150	122
402,873	3,680,462	3,100,876	617,758	2,483,118		2,328,534	383,626	2,658,199	54,922	338,642	7,240,031	123
	919,639	240,000		240,000		749,786	29,650	201,500		10,000	1,555,123	124
	47,727	600		600		43,175		16,300			95,387	125
	21,715	6,500						4,000			46,680	126
99,411	807,673	140,500	15,000	125,500	202,934	64,823	455,569	482,372	5,053	70,000	1,576,285	127
68,991	914,085	359,000	4,000	355,000		851,313	145,857	296,392		5,000	1,635,948	128
	241,583					241,850	3,850	6,000			418,825	129
	10,360					10,600					23,100	130
	13,515	6,500						4,000			31,800	131
265,124	1,459,378	1,434,998	32,905	1,402,093	178,866	205,029	238,822	1,919,138	3,605	154,304	2,791,257	132
57,901	285,057	247,081	25,000	222,081		121,667	19,400	332,955		30,937	701,322	133
	226,627	180,000		180,000		154,600	5,000	41,300		10,000	377,249	134
												135
												136
108,442	1,200,483	1,214,122	523,216	690,906	15,000		5,995	1,118,533	300,000	92,763	2,424,304	137
70,437	408,195	1,095,253	568,758	526,495		74,098	3,342	292,826	25,762	143,572	827,104	138
	103,280					76,300	5,200	30,000			158,200	139
	2,842					2,575					5,450	140
												141
223,216	1,176,146	799,357	76,394	722,963	109,643	276,286	277,930	1,656,901	5,265	54,833	2,486,813	142
102,727	899,371	581,042	20,000	561,042		886,786	84,047	267,906	11,660	131,213	1,635,641	143
	9,125					7,100	700				18,817	144
												145
												146
126,332	1,261,242	1,514,400		1,514,400	10,500	109,600	215,700	4,140,150		111,500	2,145,429	147
68,123	980,780	818,500		818,500		251,020	72,480	1,348,620	17,500	27,920	1,990,035	148
	290,895	60,000		60,000		226,800	10,000	112,900			484,124	149
	5,775	600		600		5,100		100			8,800	150
												151

[3] Includes establishments, distributed as follows: 1900—Alabama, 1; Louisiana, 1; Mississippi, 1; Texas, 1; West Virginia, 2. 1890—Florida, 1; Kentucky, 2; Virginia, 2; West Virginia, 2. 1880—West Virginia, 1.

TABLE 41.—HOSIERY AND KNIT GOODS: COMPARATIVE SUMMARY

	STATES.	Year.	Number of establishments.	Capital.	SALARIED OFFICIALS, CLERKS, ETC.		AVERAGE NUMBER OF WAGE-EARNERS AND TOTAL WAGES.					MACHINERY.					
					Number.	Salaries.	Total.		Men, 16 years and over.	Women, 16 years and over.	Children under 16 years.	Cards.	Combing machines.	Knitting machines.	Sewing machines.	Looms.	Spindles.
							Average number.	Wages.									
	Western states—Continued.																
152	Minnesota	1900	8	484,004	21	26,657	293	77,589	51	206	36	3	.....	476	94	.....	1,418
153		1890	3	247,498	10	15,356	119	31,000	17	102	.....	.....	.....	152	.....	.....	.....
154		1880	1	8,000	.....	.....	12	2,819	8	4	.....	.....	.....	10	2	1	.....
155		1870	1	150	.....	.....	1	.....	1	.....	.....	.....	.....	.....	.....	1	.....
156		[1] 1860	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
157	Iowa	[2] 1900	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
158		1890	3	8,950	2	820	7	1,730	1	6	.....	.....	.....	14	.....	.....	.....
159		1880	3	2,200	.....	.....	6	460	3	3	.....	.....	.....	7	.....	.....	.....
160		1870	2	5,200	.....	.....	6	1,200	3	3	.....	.....	.....	.....	.....	.....	.....
161		[1] 1860	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
162	Missouri	[2] 1900	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
163		1890	7	33,247	8	6,188	117	28,289	1	116	.....	.....	.....	145	.....	.....	.....
164		1880	4	29,400	.....	.....	118	19,300	3	114	1	.....	.....	68	.....	.....	.....
165		1870	7	15,700	.....	.....	61	15,600	19	41	1	.....	.....	33	.....	.....	.....
166		1860	2	11,000	.....	.....	10	2,964	10	.....	.....	.....	.....	.....	.....	.....	.....
167	Utah	1900	5	52,550	13	5,260	91	21,599	15	72	4	.....	.....	101	20	.....	.....
168		1890	5	33,370	5	3,070	65	13,950	.....	60	5	.....	.....	73	.....	.....	.....
169		[1] 1880	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
170		[1] 1870	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
171		[1] 1860	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
172	California	1900	3	89,160	10	12,160	79	27,880	6	66	7	.....	.....	82	43	.....	.....
173		[2] 1890	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
174		[1] 1880	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
175		[1] 1870	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
176		[1] 1860	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
177	All other Western states.[3]	1900	9	145,323	17	14,294	133	25,570	21	91	21	1	.....	187	5	.....	200
178		1890	7	49,085	10	9,255	144	44,216	16	128	.....	.....	.....	87	.....	.....	.....
179		[1] 1880	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
180		[1] 1870	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
181		[1] 1860	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

[1] No establishments reported.
[2] Included in "all other Western states."
[3] Includes establishments, distributed as follows: 1900—Idaho, 1; Iowa, 2; Kansas, 1; Missouri, 2; Montana, 1; Nebraska, 1; Oregon, 1. 1890—California, 2; Colorado, 2; Kansas, 1; Nebraska, 1; Washington, 1.

BY STATES, ARRANGED GEOGRAPHICALLY, 1850–1900—Continued.

Miscellaneous expenses.	Cost of materials used.	PRINCIPAL MATERIALS—QUANTITIES CONSUMED.									Value of products.	
		Wool in condition purchased.			Yarns not made in mill.			Raw cotton and cotton warp and yarn not made in mill (pounds).	Animal hair and fur and noils not made in mil (pounds).	Shoddy not made in mill (pounds).		
		Total (pounds).	Foreign (pounds).	Domestic (pounds).	Merino (pounds).	Woolen (pounds).	Worsted (pounds).					
$31,470	$197,184	37,667	.....	37,667	30,000	71,043	54,098	339,232	305	.....	$410,092	152
24,345	87,662	.....	.....	.....	.....	64,000	41,000	42,000	.....	.....	183,743	153
.....	5,000	.....	.....	.....	.....	5,000	400	.....	.....	.....	10,000	154
.....	200	.....	.....	.....	.....	200	.....	.....	.....	.....	500	155
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	156
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	157
419	1,975	.....	.....	.....	.....	1,275	.....	3,000	.....	.....	5,763	158
.....	1,554	.....	.....	.....	.....	1,536	.....	.....	.....	.....	2,908	159
.....	1,510	.....	.....	.....	.....	300	.....	600	.....	.....	2,887	160
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	161
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	162
3,803	30,524	.....	.....	.....	.....	30,325	.....	37,500	.....	.....	81,445	163
.....	41,575	.....	.....	.....	.....	36,600	4,500	11,300	.....	.....	85,000	164
.....	27,040	.....	.....	.....	.....	24,400	.....	15,600	.....	.....	54,650	165
.....	8,200	.....	.....	.....	.....	.....	.....	.....	.....	.....	14,880	166
4,577	24,184	3,000	.....	3,000	.....	11,625	10,450	15,700	.....	.....	66,357	167
2,146	25,475	.....	.....	.....	.....	31,375	2,500	500	.....	.....	53,560	168
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	169
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	170
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	171
10,570	71,751	.....	.....	.....	4,868	14,481	48,487	30,020	.....	.....	126,980	172
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	173
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	174
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	175
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	176
9,564	50,463	4,000	.....	4,000	.....	29,000	1,600	150,940	.....	2,400	115,633	177
3,981	47,338	.....	.....	.....	.....	16,675	15,000	36,500	.....	.....	125,470	178
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	179
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	180
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	181

TABLE 42.—HOSIERY AND KNIT GOODS:

		United States.	California.	Connecticut.	Delaware.	Georgia.
1	Number of establishments	921	3	25	7	16
	Character of organization:					
2	Individual	353	.....	6	2	2
3	Firm and limited partnership	252	1	2	.....	1
4	Incorporated company	312	2	17	5	13
5	Miscellaneous	4	.....	.....	.....	.....
	Capital:					
6	Total	$81,860,604	$89,160	$6,149,338	$298,511	$928,887
7	Land	$3,367,762	.....	$160,000	$9,000	$21,836
8	Buildings	$9,556,726	$4,000	$632,590	$25,803	$85,012
9	Machinery, tools, and implements	$24,036,431	$17,910	$1,306,134	$162,785	$416,329
10	Cash and sundries	$44,899,685	$67,250	$4,050,614	$100,923	$405,710
11	Proprietors and firm members	776	.....	12	2	.....
	Salaried officials, clerks, etc.:					
12	Total number	2,809	10	101	19	46
13	Total salaries	$3,124,798	$12,160	$159,300	$14,686	$39,467
	Officers of corporations—					
14	Number	439	2	31	8	11
15	Salaries	$763,316	$4,800	$69,050	$9,200	$11,907
	General superintendents, managers, clerks, etc.—					
16	Total number	2,370	8	70	11	35
17	Total salaries	$2,361,482	$7,360	$90,250	$5,486	$27,560
	Men—					
18	Number	1,965	7	60	6	33
19	Salaries	$2,188,207	$6,560	$84,864	$3,386	$26,780
	Women—					
20	Number	405	1	10	5	2
21	Salaries	$173,275	$800	$5,386	$2,100	$780
	Wage-earners, including pieceworkers, and total wages:					
22	Greatest number employed at any one time during the year	95,726	94	3,469	713	1,518
23	Least number employed at any one time during the year	71,829	58	2,978	511	1,153
24	Average number	83,387	79	3,243	582	1,208
25	Total wages	$24,358,627	$27,880	$1,131,078	$123,103	$200,662
	Men, 16 years and over—					
26	Average number	21,154	6	966	85	217
27	Wages	$8,890,728	$3,200	$447,414	$25,390	$64,148
	Women, 16 years and over—					
28	Average number	53,565	66	2,181	408	682
29	Wages	$14,243,808	$23,500	$666,597	$84,307	$104,754
	Children, under 16 years—					
30	Average number	8,668	7	96	89	309
31	Wages	$1,224,091	$1,180	$17,067	$13,406	$31,760
	Average number of wage-earners, including pieceworkers, employed during each month:					
	Men, 16 years and over—					
32	January	19,995	6	923	80	194
33	February	20,902	5	938	77	200
34	March	21,310	6	980	87	208
35	April	21,569	6	979	85	242
36	May	21,718	6	972	88	222
37	June	21,393	6	972	84	210
38	July	21,052	6	945	85	219
39	August	21,033	6	966	85	222
40	September	21,183	6	974	88	221
41	October	21,565	6	984	88	223
42	November	21,430	6	985	88	222
43	December	20,698	6	973	85	222
	Women, 16 years and over—					
44	January	51,125	55	2,062	424	655
45	February	52,499	52	2,139	399	662
46	March	54,352	67	2,185	430	678
47	April	55,419	66	2,199	405	723
48	May	54,873	67	2,227	392	718
49	June	53,865	56	2,189	367	685
50	July	52,485	65	2,111	370	663
51	August	52,444	70	2,182	356	669
52	September	53,427	72	2,237	414	691
53	October	54,659	71	2,230	449	692
54	November	54,468	76	2,226	448	677
55	December	53,174	76	2,182	440	674
	Children, under 16 years—					
56	January	8,510	5	89	79	310
57	February	8,608	6	91	84	316
58	March	8,820	7	97	95	323
59	April	8,973	7	97	87	326
60	May	9,053	7	101	88	322
61	June	8,658	6	99	87	304
62	July	8,394	7	95	77	280
63	August	8,474	7	99	85	293
64	September	8,566	8	96	99	302
65	October	8,546	8	92	97	300
66	November	8,753	8	100	99	316
67	December	8,661	8	99	94	315
	Skilled operatives, average number:					
	Spinners—					
68	Men, 16 years and over	1,624	.....	142	.....	.....
69	Women, 16 years and over	273	.....	.....	.....	.....
70	Children, under 16 years	92	.....	.....	.....	.....
	Knitters—					
71	Men, 16 years and over	4,615	5	82	9	45
72	Women, 16 years and over	11,482	36	348	207	46
73	Children, under 16 years	1,501	4	.....	29	18
	Finishers—					
74	Men, 16 years and over	2,427	.....	54	30	19
75	Women, 16 years and over	16,502	37	705	123	149
76	Children, under 16 years	950	2	.....	5	12
	Machinery:					
77	Sets of woolen cards	1,161	.....	134	.....	.....
78	Combing machines, number	15	.....	9	.....	.....
79	Of American manufacture	8	.....	5	.....	.....
80	Of foreign manufacture	7	.....	4	.....	.....
81	Spindles, number	521,871	.....	79,536	.....	.....
	Spinning—					
82	Woolen	290,366	.....	32,876	.....	.....
83	Worsted	14,064	.....	6,000	.....	.....
84	Cotton	205,742	.....	39,500	.....	.....

SUMMARY BY STATES, 1900.

Illinois.	Indiana.	Maine.	Maryland.	Massachusetts.	Michigan.	Minnesota.	New Hampshire.	
14	7	3	4	54	32	8	22	1
7	.....	1	.....	18	5	3	8	2
2	1	2	1	9	4	1	4	3
5	6	.....	3	27	23	4	8	4
.....	.....	.....	.....	.....	.....	.....	2	5
$1,530,990	$2,728,306	$9,000	$311,508	$6,288,672	$2,135,916	$484,004	$2,525,286	6
$28,200	$76,200	.....	$3,000	$369,094	$90,922	$29,000	$208,756	7
$167,387	$188,602	.....	$8,083	$711,522	$194,090	$78,000	$374,085	8
$521,250	$375,771	$4,400	$94,789	$1,268,522	$495,552	$120,853	$656,251	9
$814,153	$2,087,733	$4,600	$205,636	$3,939,631	$1,355,352	$256,151	$1,286,194	10
6	.....	6	2	36	4	1	16	11
46	103	.....	28	166	201	21	51	12
$66,720	$201,085	.....	$14,518	$212,753	$187,574	$26,657	$58,011	13
12	18	.....	8	29	22	7	11	14
$26,500	$43,879	.....	$4,179	$50,260	$33,920	$18,500	$17,650	15
34	85	.....	20	137	179	14	40	16
$40,220	$157,206	.....	$10,339	$162,493	$153,654	$8,157	$40,361	17
26	84	.....	19	106	124	10	31	18
$34,100	$156,816	.....	$10,300	$148,104	$130,358	$6,757	$37,214	19
8	1	.....	1	31	55	4	9	20
$6,120	$390	.....	$39	$14,389	$23,296	$1,400	$3,147	21
1,934	2,165	41	765	7,690	3,040	380	2,974	22
1,572	1,273	36	609	5,715	2,071	194	2,040	23
1,805	2,016	37	682	6,667	2,509	293	2,492	24
$494,285	$703,129	$7,425	$119,456	$2,091,258	$580,129	$77,589	$790,558	25
417	1,032	4	60	1,658	498	51	890	26
$178,298	$518,724	$1,300	$23,715	$752,031	$172,085	$18,553	$339,032	27
1,233	874	31	526	4,549	1,873	206	1,514	28
$293,337	$175,925	$6,000	$89,754	$1,263,543	$391,345	$53,876	$434,417	29
155	110	2	96	460	138	36	88	30
$22,650	$8,480	$125	$5,987	$75,684	$16,699	$5,160	$17,109	31
429	1,044	4	62	1,681	396	36	783	32
430	1,029	3	64	1,656	443	41	847	33
430	1,045	5	65	1,673	479	39	884	34
431	1,027	6	65	1,653	510	44	902	35
406	1,038	5	50	1,596	514	51	900	36
406	1,039	6	56	1,617	533	58	914	37
405	1,029	2	55	1,611	529	58	888	38
405	1,043	3	54	1,616	563	59	869	39
405	1,035	2	61	1,677	563	60	893	40
407	1,017	3	59	1,696	562	58	926	41
423	1,022	3	61	1,713	471	54	964	42
424	1,016	3	54	1,709	417	54	912	43
1,063	878	29	545	4,657	1,688	110	1,295	44
1,171	829	29	549	4,745	1,755	121	1,354	45
1,261	888	29	550	4,808	1,854	138	1,451	46
1,265	911	29	552	4,837	2,016	177	1,495	47
1,246	846	29	491	4,322	1,989	218	1,542	48
1,246	893	29	503	4,311	1,857	242	1,556	49
1,251	917	32	514	4,109	1,854	264	1,565	50
1,249	877	32	518	4,121	1,913	264	1,549	51
1,258	851	32	516	4,347	1,985	259	1,552	52
1,258	850	32	510	4,636	2,010	257	1,586	53
1,265	880	32	526	4,820	1,830	241	1,636	54
1,264	869	32	538	4,872	1,727	182	1,601	55
149	94	2	112	454	137	36	80	56
156	94	2	111	471	137	36	85	57
156	98	2	109	475	137	36	92	58
156	115	2	112	484	137	36	90	59
156	112	3	95	467	138	36	89	60
156	118	3	100	453	138	36	89	61
156	112	3	91	446	138	36	92	62
156	121	3	92	457	138	36	88	63
156	118	2	84	449	138	36	88	64
156	112	3	83	437	139	36	88	65
156	112	3	85	457	139	36	86	66
156	114	2	83	465	138	36	86	67
37	15	.....	.....	88	63	1	66	68
.....	12	.....	.....	27	1	3	3	69
.....	.....	.....	.....	.....	.....	.....	5	70
144	124	.....	14	379	307	15	261	71
594	208	.....	37	496	774	93	354	72
27	.....	.....	.....	26	26	.....	16	73
134	68	.....	18	227	73	7	104	74
524	495	.....	21	120	1,576	64	352	75
110	22	.....	.....	11	24	.....	.....	76
7	27	.....	.....	39	28	3	74	77
.....	.....	.....	.....	3	.....	.....	.....	78
.....	.....	.....	.....	3	.....	.....	.....	79
.....	.....	.....	.....	.....	.....	.....	.....	80
3,480	8,500	.....	.....	108,938	6,686	1,418	26,867	81
3,480	8,400	.....	.....	8,582	5,284	1,248	20,136	82
.....	.....	.....	.....	3,500	960	.....	.....	83
.....	.....	.....	.....	90,780	.....	.....	6,320	84

TABLE 42.—HOSIERY AND KNIT GOODS.

		United States.	California.	Connecticut.	Delaware.	Georgia.
	Machinery—Continued.					
	Spindles, number—Continued.					
	Doubling—					
85	Woolen	3,613				
86	Worsted	7,130		960		
87	Cotton	956		200		
88	Looms on woolen or worsted goods, number	133				
	Narrow, under 50-inch reed space—					
89	On woolen goods	130				
	Hand—					
90	On woolen or worsted goods	3				
91	Braiders, number	128				
92	Sewing machines, number	24,535	43	988	346	235
93	Knitting machines, number	89,047	82	2,662	674	1,078
	Spring-beard needle—					
94	Flat, ribbed	1,691		420	30	
95	Flat, plain	1,432		19	12	
96	Full fashioned, flat, ribbed	65		6		
97	Full fashioned, flat, plain	1,069		542		
98	Circular, ribbed	1,467		45		
99	Circular, plain	6,753		618	8	
100	Circular, hosiery, automatic	1,700		28	8	10
101	Lamb, and other variety, hand	336				
	Latch needle—					
102	Flat, ribbed	1,655		66	19	22
103	Flat, plain	1,936				10
104	Full fashioned, flat, ribbed	358		7		
105	Full fashioned, flat, plain	869				
106	Circular, ribbed	17,490	8	237	243	262
107	Circular, plain	6,760		44	8	15
108	Circular, hosiery, automatic	39,993	6	580	341	759
109	Lamb, and other variety, hand	5,473	68	50	5	
	Miscellaneous expenses:					
110	Total	$6,599,865	$10,570	$205,658	$32,471	$72,631
111	Rent of works	$424,250	$1,800	$12,370	$1,875	$910
112	Taxes, not including internal revenue	$286,780	$540	$23,990	$639	$5,353
113	Rent of offices, insurance, and all sundry expenses not hitherto included	$4,747,007	$8,230	$154,698	$29,657	$55,496
114	Contract work	$1,141,828		$14,600	$300	$10,872
	Materials used:					
115	Total cost	$51,071,859	$71,751	$2,202,640	$209,048	$757,430
	Wool—					
116	Foreign, in condition purchased, pounds	3,446,838		1,181,663		
117	Cost	$1,341,397		$479,436		
118	Domestic, in condition purchased, pounds	14,507,069		1,291,104		
119	Cost	$3,917,738		$344,178		
120	Foreign and domestic, etc., scoured, pounds	13,031,308		1,722,259		
	Animal hair and fur—					
121	Mohair, pounds	631,199				
122	Cost	$44,953				
123	Buffalo, cow, and other animal hair and fur, pounds	330,920				
124	Cost	$11,175				
125	Cotton, bales	99,518		4,588		
126	Pounds	49,451,301		2,068,413		
127	Cost	$3,561,592		$176,729		
	Materials, not made in mill—					
128	Shoddy, pounds	3,770,626		27,517		
129	Cost	$488,792		$4,362		
130	Wool waste and noils, pounds	5,276,454		493,216		
131	Cost	$1,487,907		$117,935		
132	Camel, alpaca, and vicuña noils, pounds	131,635		3,175		
133	Cost	$39,832		$1,352		
134	Mohair noils, pounds	100				
135	Cost	$25				
136	Tops, pounds	133,614		12,066		
137	Cost	$92,103		$7,188		
	Yarns, not made in mill—					
138	Woolen, pounds	2,621,893	14,481	9,000		
139	Cost	$1,257,587	$13,802	$5,455		
140	Worsted, pounds	5,823,215	48,487	233,282		
141	Cost	$4,865,304	$36,939	$224,648		
142	Merino, pounds	1,981,484	4,868	29,162		1,180
143	Cost	$642,535	$2,362	$24,116		$413
144	Cotton, pounds	131,820,068	30,020	991,497	1,099,817	3,707,218
145	Cost	$22,204,918	$9,046	$250,011	$167,700	$624,311
146	Silk, pounds	162,424	203	901		
147	Cost	$669,236	$1,583	$4,726		
148	Spun silk, pounds	103,823	1,076	12,749		
149	Cost	$277,565	$3,179	$30,974		
150	Linen, pounds	71,478	657	3,000		
151	Cost	$53,588	$490	$3,000		
152	Jute, ramie, or other vegetable fiber, pounds	44,682				
153	Cost	$57,677				
154	All other materials which are components of product	$3,932,624		$38,074	$26,522	$55,074
155	Soap, pounds	5,903,557		605,522	3,800	5,852
156	Cost	$204,485		$23,757	$190	$234
157	Oil for preparing wool for cards or combs, gallons	396,278		92,183		60
158	Cost	$91,315		$13,057		$25
159	Chemicals and dyestuffs	$1,023,161		$40,094	$7,200	$12,063
160	Fuel	$738,039	$800	$44,641	$4,595	$10,458
161	Rent of power and heat	$131,503	$200	$2,959		$436
162	Mill supplies	$312,214	$100	$15,042	$1,825	$6,080
163	All other materials	$3,236,699	$1,850	$327,171	$200	$39,546
164	Freight	$384,895	$1,400	$23,732	$816	$8,790
165	Cotton yarn made in mill for use therein, pounds	40,845,889		333,929		
	Products:					
166	Total value	$95,482,566	$126,980	$4,043,977	$429,055	$1,230,801
	Partly manufactured products for sale—					
167	Woolen yarn, all wool, pounds	79,027				
168	Value	$38,307				
169	Worsted yarn and tops, pounds	51,202				
170	Value	$36,303				
171	Woolen or worsted yarn, union or merino, cotton mixed, pounds	4,300				
172	Value	$2,080				
173	Cotton yarn, pounds	2,419,282				
174	Value	$422,100				
175	Waste, pounds	385,863			25,372	
176	Value	$31,267			$765	

SUMMARY BY STATES, 1900—Continued.

Illinois.	Indiana.	Maine.	Maryland.	Massachusetts.	Michigan.	Minnesota.	New Hampshire.	
					440	170	411	85
	100			5,500	2			86
				576				87
								88
								89
								90
								91
								92
282	272	3	70	1,855	588	94	348	93
1,975	633	126	612	5,003	2,828	476	23,174	
				134	5		1	94
1	7			36	141		4	95
2				2			1	96
	17			74			27	97
	54			75	92		80	98
				829	255		73	99
30	32			21	12	3	78	100
				35	62		1	101
								102
				110	38		11	
25				33	3		123	103
	18			2		18		104
60				6	40		275	105
400	6		100	1,006	521	75	1,015	106
391	104		454	211	409	160	312	107
152	151		58	2,130	380	183	21,014	108
597	114			294	870	37	159	109
317	130	126						
$126,332	$108,442	$6,389	$21,981	$528,103	$265,124	$31,470	$175,118	110
$14,132		$200	$1,300	$18,580	$10,227	$899	$11,625	111
$7,204	$8,373	$58	$851	$55,519	$9,912	$1,297	$9,892	112
$104,996	$100,069	$1,531	$16,943	$340,054	$209,852	$29,111	$139,061	113
		$4,600	$2,887	$113,950	$35,133	$163	$14,540	114
$1,261,242	$1,200,483	$10,810	$347,250	$2,910,640	$1,459,378	$197,184	$1,319,170	115
				2,000	32,905		109,163	116
	523,216			$1,000	$5,337		$48,474	117
	$75,832			1,144,940	1,402,093	37,667	711,108	118
1,514,400	690,906			$252,252	$294,169	$13,937	$156,076	119
$205,760	$129,323			571,387	1,382,584	37,667	441,685	120
764,400	538,081							
								121
								122
								123
	300,000				505			124
	$9,000				$45			125
	2,674			21,908	351	163	4,034	126
117	173,038			10,915,958	182,467	84,264	1,942,884	127
322,500	$12,585			$781,259	$15,727	$6,240	$177,079	
$23,125								
				65,075	154,304		668,821	128
111,500	92,763			$9,797	$29,266		$124,316	129
$18,728	$15,037			204,756	83,179	24,950	128,436	130
150,000	137,515			$68,796	$21,683	$2,495	$47,541	131
$18,000	$28,518				3,100	305		132
					$498	$61		133
								134
								135
								136
				5,000				137
				$3,400				
109,600		18,000	38,488	128,631	205,029	71,043	107,426	138
$70,475		$10,200	$16,905	$63,321	$99,098	$26,131	$32,936	139
215,700	5,995		14,663	411,468	238,822	54,098	270,820	140
$186,400	$5,626		$8,911	$380,425	$220,029	$45,419	$234,096	141
10,500	15,000		12,409	44,604	178,866	30,000	38,000	142
$3,700	$3,161		$4,891	$27,794	$67,018	$9,300	$5,220	143
3,817,650	945,495		1,011,889	2,610,885	1,736,671	254,968	1,230,881	144
$571,961	$184,487		$214,709	$628,635	$360,351	$62,271	$229,778	145
5,600				10,114	5,271		2,000	146
$30,000				$31,816	$19,004		$3,012	147
7,000				20,570	1,263	520	300	148
$23,000				$64,044	$3,908	$1,482	$210	149
	1,000			678				150
	$1,200			$678				151
					4,000			152
					$3,400			153
								154
$1,650	$671,305	$50	$79,560	$184,259	$148,411	$5,525	$34,493	155
200,000	108,875		9,000	260,776	225,480	40,420	335,651	156
$3,000	$3,455		$439	$7,682	$8,403	$1,570	$13,663	157
4,100	8,490		115	12,508	14,400	1,229	26,315	158
$1,200	$1,926		$53	$1,602	$3,168	$202	$7,357	159
$24,200	$19,550		$4,627	$121,525	$32,154	$3,625	$66,640	160
$18,028	$17,725	$100	$3,167	$63,119	$26,099	$6,805	$26,679	161
$9,512	$510	$10		$8,595	$4,049	$59	$2,490	162
$4,080	$8,535	$210	$1,300	$22,834	$9,012	$968	$12,665	163
$25,824	$6,476		$10,677	$163,884	$74,250	$5,246	$77,521	164
$22,599	$6,232	$240	$2,011	$23,923	$14,299	$3,848	$18,924	165
	115,000			8,555,495	154,626		457,998	
$2,145,429	$2,424,304	$29,075	$514,093	$6,620,257	$2,791,257	$410,092	$2,592,829	166
								167
								168
								169
								170
								171
								172
								173
								174
				1,880,670				
				$336,887			5,000	175
			1,063	172,979			$2,756	176
			$609	$6,959				

TABLE 42.—HOSIERY AND KNIT GOODS:

		United States.	California.	Connecticut.	Delaware.	Georgia.
	Product—Continued.					
	Total value—Continued.					
	Hosiery and knit goods—					
	Hose and half hose—					
	Woolen—					
179	Half hose, dozens	939,957	20	167,213	.....	.....
180	Value	$1,738,535	$80	$224,634	.....	.....
181	Hose, dozens	1,176,705	50	3,998	.....	.....
182	Value	$2,267,681	$400	$14,208	.....	.....
	Merino or mixed—					
183	Half hose, dozens	957,520	.....	125,662	.....	590
184	Value	$1,384,764	.....	$163,491	.....	$649
185	Hose, dozens	436,891	.....	.....	.....	.....
186	Value	$659,959	.....	.....	.....	.....
	Cotton—					
187	Half hose, dozens	11,352,081	.....	25,811	149,233	794,345
188	Value	$7,906,945	.....	$70,014	$88,181	$430,610
189	Hose, dozens	15,028,173	.....	70,007	341,612	400,427
190	Value	$13,275,732	.....	$75,717	$228,575	$321,058
191	Silk hose, dozens	12,572	.....	420	.....	.....
192	Value	$186,413	.....	$4,081	.....	.....
	Shirts and drawers—					
193	Merino or mixed, dozens	2,675,416	100	298,148	.....	.....
194	Value	$13,293,829	$500	$1,999,994	.....	.....
195	All wool, dozens	1,085,046	400	58,479	.....	.....
196	Value	$4,980,818	$5,000	$533,651	.....	.....
197	All cotton, dozens	12,058,431	.....	159,169	12,456	205,165
198	Value	$26,882,902	.....	$446,073	$20,275	$432,329
199	Silk or silk mixed, dozens	54,807	100	4,514	.....	.....
200	Value	$518,045	$4,000	$86,318	.....	.....
	Combination suits—					
201	Merino or mixed, dozens	139,994	.....	898	.....	.....
202	Value	$1,133,328	.....	$13,450	.....	.....
203	All wool, dozens	9,501	50	.....	.....	.....
204	Value	$201,667	$600	.....	.....	.....
205	All cotton, dozens	824,632	.....	256	28,867	20,000
206	Value	$2,240,566	.....	$2,828	$72,940	$40,000
207	Silk or silk mixed, dozens	12,728	.....	.....	.....	.....
208	Value	$116,286	.....	.....	.....	.....
209	Leggins and gaiters, dozens	71,038	50	1,350	.....	.....
210	Value	$248,523	$500	$4,650	.....	.....
211	Gloves and mittens, dozens	1,898,587	.....	16,250	.....	.....
212	Value	$4,244,046	.....	$47,825	.....	.....
213	Hoods, scarfs, nubias, etc., dozens	343,429	500	.....	.....	.....
214	Value	$1,002,392	$5,000	.....	.....	.....
	Cardigan jackets, sweaters, athletic goods, fancy jackets, etc.,					
215	dozens	594,090	1,200	50	.....	.....
216	Value	$3,498,837	$24,000	$2,500	.....	.....
217	Shawls, dozens	157,622	.....	.....	.....	.....
218	Value	$328,720	.....	.....	.....	.....
219	Fancy knit goods, wristers, etc., dozens	284,685	10	.....	.....	.....
220	Value	$951,052	$100	.....	.....	.....
221	Boot and shoe linings, square yards	10,406,440	.....	983,295	.....	.....
222	Value	$2,205,003	.....	$98,603	.....	.....
223	Astrakhans, square yards	664,779	.....	.....	.....	.....
224	Value	$332,488	.....	.....	.....	.....
225	Jersey cloth and stockinette, square yards	4,488,911	.....	174,604	.....	.....
226	Value	$1,305,376	.....	$84,807	.....	.....
227	All other products	$3,774,671	$86,800	$144,257	.....	$6,155
228	Amount received for contract work	$273,931	.....	$26,876	$18,319	.....
	Comparison of products.					
229	Number of establishments reporting for both years	716	3	24	7	10
230	Value for census year	$85,163,464	$126,980	$4,003,802	$429,055	$1,055,797
231	Value for preceding business year	$74,917,674	$112,388	$3,542,686	$364,845	$863,775
	Power:					
232	Number of establishments reporting	832	1	24	7	15
233	Total horsepower	58,087	10	3,108	246	567
	Owned—					
	Engines—					
234	Steam, number	697	.....	26	8	14
235	Horsepower	39,693	.....	2,230	246	517
236	Gas or gasoline, number	28	1	.....	.....	.....
237	Horsepower	203	7	.....	.....	.....
238	Water wheels, number	206	.....	19	.....	1
239	Horsepower	14,824	.....	871	.....	30
240	Electric motors, number	71	.....	.....	.....	1
241	Horsepower	745	.....	.....	.....	10
242	Other power, number	1	.....	.....	.....	.....
243	Horsepower	4	.....	.....	.....	.....
	Rented horsepower—					
244	Electric	1,303	3	2	.....	10
245	Other kind	1,315	.....	5	.....	.....
246	Furnished to other establishments, horsepower	398	.....	3	45	.....
	Establishments classified by number of persons employed, not including proprietors and firm members:					
247	Total number of establishments	921	3	25	7	16
248	No employees	5	.....	1	.....	.....
249	Under 5	46	1	1	.....	.....
250	5 to 20	165	1	3	.....	1
251	21 to 50	221	.....	3	2	4
252	51 to 100	175	1	3	2	8
253	101 to 250	213	.....	11	3	1
254	251 to 500	74	.....	1	.....	2
255	501 to 1,000	20	.....	2	.....	.....
256	Over 1,000	2	.....	.....	.....	.....

SUMMARY BY STATES, 1900—Continued.

Illinois.	Indiana.	Maine.	Maryland.	Massachusetts.	Michigan.	Minnesota.	New Hampshire.	
117,517	31,696	.....	16,947	32,009	28,542	14,210	217,381	159
$189,232	$61,327	.....	$30,304	$72,444	$101,709	$32,830	$356,591	180
117,726	8,450	100	7,215	21,311	27,838	6,433	567,510	181
$254,244	$19,520	$500	$12,627	$44,358	$115,380	$17,508	$805,811	182
58,334	15,500	.....	.....	48,149	43,140	10,283	139,038	183
$48,564	$25,245	.....	.....	$19,225	$87,046	$20,175	$230,406	184
58,333	7,450	.....	.....	2,160	44,134	10,551	108,899	185
$66,040	$12,292	.....	.....	$3,240	$103,681	$17,779	$103,769	286
1,193,150	86,121	.....	172,525	223,420	173,232	3,137	.....	187
$600,056	$98,754	.....	$145,398	$321,076	$152,626	$34,140	.....	188
469,600	198,836	.....	26,624	2,031,921	128,726	51,355	$559,439	189
$390,000	$304,659	.....	$25,155	$1,384,865	$159,532	$30,813	$408,301	190
.....	.....	.....	.....	4,902	.....	.....	.....	191
.....	.....	.....	.....	$77,112	.....	.....	.....	192
2,000	3,547	.....	.....	75,121	2,543	6,191	145,522	193
$20,000	$35,470	.....	.....	$284,956	$29,567	$41,531	$442,271	194
16,679	13,664	.....	.....	64,356	2,998	967	8,000	195
$61,288	$163,968	.....	.....	$505,379	$61,977	$13,067	$76,000	196
2,000	17,742	.....	100,000	852,167	303,955	2,272	46,058	197
$10,000	$48,790	.....	$300,000	$2,304,872	$420,716	$10,600	$102,116	198
6,300	.....	.....	.....	4,500	368	.....	1,128	199
$72,172	.....	.....	.....	$37,830	$11,597	.....	$7,724	200
.....	.....	.....	.....	30,514	8,378	4,943	792	201
.....	.....	.....	.....	$231,433	$103,569	$75,443	$7,128	202
14	.....	.....	.....	969	1,650	.....	.....	203
$840	.....	.....	.....	$23,897	$56,418	.....	.....	204
.....	.....	.....	.....	12,069	4,034	8,309	6,014	205
.....	.....	.....	.....	$96,406	$51,300	$65,679	$24,056	206
.....	.....	.....	.....	1,281	586	.....	.....	207
.....	.....	.....	.....	$16,200	$27,654	.....	.....	208
.....	.....	.....	.....	4,852	3,271	.....	.....	209
506	.....	.....	.....	$24,987	$12,199	.....	.....	210
$1,372	.....	.....	.....	51,440	298,382	495	.....	211
200,381	45,798	100	.....	$110,449	$733,954	$1,055	.....	212
$353,711	$87,281	$275	.....	1,060	.....	100	.....	213
.....	.....	.....	.....	$6,850	.....	$400	.....	214
.....	.....	.....	.....	7,476	1,090	1,616	116	215
5,310	.....	1,000	.....	$116,756	$20,020	$23,225	$4,211	216
$59,600	.....	$13,500	.....	416	.....	.....	.....	217
.....	.....	.....	.....	$1,261	.....	.....	.....	218
.....	.....	.....	.....	10,841	12,074	50	4	219
11,000	.....	.....	.....	$26,860	$12,148	$500	$40	220
$2,600	.....	.....	.....	905,000	.....	.....	.....	221
.....	.....	.....	.....	$235,750	.....	.....	.....	222
.....	.....	.....	.....	24,000	111,300	.....	.....	223
.....	.....	.....	.....	$11,843	$61,232	.....	.....	224
.....	.....	.....	.....	461,134	20,000	.....	.....	225
.....	.....	.....	.....	$163,051	$5,000	.....	.....	226
$15,510	$1,566,998	.....	.....	$32,985	$463,932	$24,947	$10,949	227
$200	.....	$14,800	.....	$92,326	.....	$400	$10,700	228
14	7	1	4	44	27	7	20	229
$2,145,429	$2,424,304	$8,000	$514,093	$6,412,114	$2,593,430	$405,517	$2,407,919	230
$1,839,794	$2,063,379	$8,500	$430,650	$5,402,826	$1,991,189	$353,820	$2,208,455	231
9	7	.....	4	46	30	7	20	232
902	1,519	.....	160	6,725	1,482	304	2,313	233
8	11	.....	6	46	22	6	10	234
490	585	.....	160	4,533	1,050	250	570	235
1	.....	.....	.....	1	4	2	.....	236
10	.....	.....	.....	8	32	13	.....	237
1	6	.....	.....	11	4	1	27	238
150	750	.....	.....	1,940	257	40	1,640	239
6	14	.....	.....	3	4	.....	.....	240
90	159	.....	.....	35	26	.....	.....	241
.....	.....	.....	.....	1	.....	.....	.....	242
.....	.....	.....	.....	4	.....	.....	.....	243
150	25	.....	.....	103	37	1	28	244
12	.....	.....	.....	102	80	.....	75	245
.....	25	.....	.....	56	.....	.....	.....	246
14	7	3	4	54	32	8	22	247
.....	.....	1	.....	1	.....	.....	1	248
1	.....	.....	.....	6	3	.....	.....	249
4	.....	1	.....	9	3	4	4	250
4	.....	.....	.....	16	8	1	2	251
.....	2	1	.....	10	10	2	4	252
1	2	.....	3	6	5	1	6	253
3	1	.....	1	4	2	.....	5	254
1	2	.....	.....	1	1	.....	.....	255
.....	.....	.....	.....	1	.....	.....	.....	256

TABLE 42.—HOSIERY AND KNIT GOODS:

		New Jersey.	New York.	North Carolina.	Ohio.	Pennsylvania.
1	Number of establishments	16	242	24	24	319
	Character of organization:					
2	Individual	11	98	4	8	151
3	Firm and limited partnership	2	57	7	8	134
4	Incorporated company	3	86	13	8	33
5	Miscellaneous	.....	1	.....	.....	1
	Capital:					
6	Total	$1,973,482	$30,203,640	$674,869	$1,067,937	$15,743,981
7	Land	$83,000	$1,194,978	$16,925	$40,320	$721,967
8	Buildings	$256,855	$3,944,373	$52,852	$77,046	$1,890,387
9	Machinery, tools, and implements	$742,687	$9,001,637	$360,420	$323,958	$5,599,572
10	Cash and sundries	$890,940	$16,062,652	$244,672	$626,613	$7,532,055
11	Proprietors and firm members	5	230	15	21	367
	Salaried officials, clerks, etc.:					
12	Total number	61	805	64	56	688
13	Total salaries	$73,043	$930,764	$46,224	$55,356	$638,483
	Officers of corporations—					
14	Number	6	119	18	12	58
15	Salaries	$17,000	$216,411	$12,185	$15,050	$89,331
	General superintendents, managers, clerks, etc.—					
16	Total number	55	686	46	44	630
17	Total salaries	$56,043	$714,353	$34,039	$40,306	$549,152
	Men—					
18	Number	54	608	41	34	487
19	Salaries	$55,243	$676,428	$32,961	$37,170	$491,717
	Women—					
20	Number	1	78	5	10	143
21	Salaries	$800	$37,925	$1,078	$3,136	$57,435
	Wage-earners, including pieceworkers, and total wages:					
22	Greatest number employed at any one time during the year	2,079	30,852	1,692	1,565	24,063
23	Least number employed at any one time during the year	1,544	22,136	1,425	1,311	19,185
24	Average number	1,841	26,470	1,495	1,413	21,540
25	Total wages	$446,608	$8,964,097	$255,253	$354,369	$5,825,783
	Men, 16 years and over—					
26	Average number	602	8,327	317	154	3,725
27	Wages	$187,756	$3,612,989	$91,029	$74,125	$1,599,766
	Women, 16 years and over—					
28	Average number	1,087	17,219	735	1,229	13,739
29	Wages	$241,974	$5,180,572	$123,742	$275,317	$3,648,805
	Children, under 16 years—					
30	Average number	152	924	443	30	4,076
31	Wages	$16,878	$170,536	$40,482	$4,927	$577,212
	Average number of wage-earners, including pieceworkers, employed during each month:					
	Men, 16 years and over—					
32	January	534	7,641	323	146	3,715
33	February	594	8,154	340	151	3,825
34	March	596	8,334	343	157	3,869
35	April	563	8,429	351	161	3,869
36	May	587	8,693	356	151	3,832
37	June	588	8,539	287	148	3,696
38	July	592	8,437	288	156	3,572
39	August	592	8,348	280	158	3,623
40	September	614	8,347	285	161	3,651
41	October	633	8,700	295	156	3,679
42	November	656	8,451	328	150	3,706
43	December	671	7,852	329	155	3,658
	Women, 16 years and over—					
44	January	1,052	16,142	719	1,213	13,693
45	February	1,061	16,596	786	1,217	13,950
46	March	1,106	17,414	804	1,255	14,206
47	April	1,045	17,694	802	1,285	14,286
48	May	1,063	17,946	799	1,259	14,109
49	June	1,078	17,709	681	1,242	13,569
50	July	1,066	17,452	676	1,233	12,919
51	August	1,067	16,852	699	1,219	13,402
52	September	1,088	16,944	706	1,195	13,730
53	October	1,123	17,666	716	1,221	13,706
54	November	1,143	17,502	719	1,202	13,739
55	December	1,154	16,717	713	1,201	13,559
	Children, under 16 years—					
56	January	160	863	451	25	4,173
57	February	163	893	458	27	4,160
58	March	157	959	461	30	4,238
59	April	112	947	461	32	4,271
60	May	154	956	463	35	4,266
61	June	149	943	431	38	3,963
62	July	152	939	430	38	3,835
63	August	156	918	424	34	3,897
64	September	158	907	432	29	3,966
65	October	137	937	436	28	3,964
66	November	165	920	434	25	4,100
67	December	162	900	434	25	4,085
	Skilled operatives, average number:					
	Spinners—					
68	Men 16 years and over	56	892	18	4	67
69	Women, 16 years and over	.....	42	18	16	49
70	Children, under 16 years	.....	3	18	.....	14
	Knitters—					
71	Men, 16 years and over	164	1,466	62	110	1,032
72	Women, 16 years and over	157	836	178	469	5,000
73	Children, under 16 years	16	19	88	.....	886
	Finishers—					
74	Men, 16 years and over	35	480	45	30	854
75	Women, 16 years and over	320	7,803	95	275	2,589
76	Children, under 16 years	43	68	13	.....	302
	Machinery.					
77	Sets of woolen cards	26	674	5	10	31
78	Combing machines, number	.....	.....	.....	.....	.....
79	Of American manufacture	.....	.....	.....	.....	.....
80	Of foreign manufacture	.....	.....	.....	.....	.....
81	Spindles, number	8,408	191,582	2,860	3,920	31,604
	Spinning—					
82	Woolen	8,408	152,622	.....	3,920	16,496
83	Worsted	.....	.....	.....	.....	.....
84	Cotton	.....	38,404	2,860	.....	14,128

[1] Includes states having less than 3 establishments in order that the operations of individual establishments may not be disclosed. The establishments are distributed as follows: Alabama, 1; Idaho, 1; Iowa, 2; Kansas, 1; Louisiana, 1; Mississippi, 1; Montana, 1; Nebraska, 1; Oregon, 1; Texas 1; West Virginia 2; Missouri, 2.

SUMMARY BY STATES, 1900.

Rhode Island.	South Carolina.	Tennessee.	Utah.	Vermont.	Virginia.	Wisconsin.	All other states.[1]	
15	6	4	5	14	15	27	15	1
4	3	.....	1	3	4	9	5	2
2	1	1	2	4	3	2	1	3
9	2	3	2	7	8	16	9	4
.....	.....	.....	.....	.....	.....	.....	.....	5
$2,452,044	$345,212	$216,950	$52,550	$1,589,786	$978,575	$2,558,299	$523,701	6
$145,350	$4,112	$4,200	$4,500	$21,300	$26,100	$59,760	$18,742	7
$304,891	$43,200	$37,200	$3,000	$92,380	$61,307	$222,935	$101,126	8
$598,808	$200,000	$102,000	$11,800	$185,822	$282,688	$671,934	$211,559	9
$1,402,495	$97,900	$73,550	$33,250	$990,284	$608,480	$1,600,670	$162,274	10
10	3	.....	4	9	4	13	7	11
65	15	12	13	32	38	125	43	12
$87,223	$13,520	$15,300	$5,260	$42,024	$36,057	$150,209	$38,404	13
9	3	3	.....	5	12	29	10	14
$26,050	$2,950	$3,400	.....	$7,644	$12,100	$57,650	$13,700	15
56	12	9	13	27	26	100	33	16
$61,173	$10,570	$11,900	$5,260	$34,380	$23,957	$92,559	$24,704	17
51	10	8	3	25	26	82	30	18
$58,617	$9,970	$11,500	$2,800	$33,460	$23,957	$85,006	$24,139	19
5	2	1	10	2	.....	18	3	20
$2,556	$600	$400	$2,460	$920	.....	$7,553	$565	21
1,850	460	780	126	1,244	2,197	3,095	942	22
1,345	262	591	69	825	1,862	2,282	782	23
1,594	359	511	91	1,041	1,845	2,722	852	24
$469,193	$73,872	$72,980	$21,599	$389,667	$394,871	$600,495	$143,288	25
435	73	113	15	387	601	341	180	26
$183,293	$25,200	$31,424	$8,800	$161,507	$179,267	$144,862	$46,820	27
1,015	158	228	72	651	988	1,756	545	28
$256,743	$32,792	$26,460	$12,574	$227,842	$185,013	$357,777	$86,842	29
144	128	170	4	3	256	625	127	30
$29,157	$15,880	$15,096	$225	$318	$30,591	$97,856	$9,626	31
396	63	99	13	368	585	302	172	32
448	68	99	13	411	583	312	171	33
445	75	99	14	397	578	332	170	34
440	75	105	14	406	689	341	176	35
432	85	107	16	408	690	336	177	36
431	55	119	17	384	697	351	180	37
420	56	119	17	357	643	375	188	38
438	67	119	16	361	573	380	187	39
431	71	124	17	363	570	377	187	40
419	72	124	18	408	560	290	182	41
471	91	124	16	406	477	361	181	42
453	99	124	13	375	562	340	182	43
984	153	138	55	535	977	1,478	525	44
1,043	153	138	55	643	980	1,566	506	45
1,028	162	138	50	679	1,004	1,660	507	46
1,068	170	178	74	697	1,140	1,757	548	47
1,017	173	213	83	698	1,132	1,752	542	48
986	142	238	80	653	1,154	1,836	563	49
945	141	238	93	614	995	1,864	544	50
984	142	238	77	636	909	1,877	542	51
980	156	303	82	682	920	1,885	542	52
1,027	158	303	82	686	919	1,886	585	53
1,037	173	303	65	696	808	1,852	572	54
1,078	178	303	62	590	924	1,658	589	55
140	114	76	3	3	257	585	113	56
136	131	76	3	3	263	599	107	57
136	135	76	3	3	268	620	107	58
149	140	171	3	3	296	618	121	59
154	152	186	3	3	308	638	121	60
153	111	186	4	3	321	646	121	61
152	110	196	5	3	233	635	133	62
148	109	216	5	3	224	634	131	63
150	121	216	5	3	225	646	132	64
145	124	216	5	3	224	630	146	65
152	141	211	5	3	223	634	143	66
114	144	211	3	3	224	615	145	67
26	12	.....	.....	42	45	25	25	68
34	13	.....	.....	.....	.....	55	.....	69
10	35	.....	.....	.....	.....	7	.....	70
160	31	10	.....	78	86	22	9	71
153	96	64	60	51	92	887	246	72
58	11	135	3	1	39	57	42	73
49	26	16	.....	60	14	38	46	74
195	18	168	18	157	246	304	148	75
2	.....	165	.....	2	6	157	6	76
10	.....	.....	.....	40	34	16	3	77
3	.....	.....	.....	.....	.....	.....	.....	78
.....	.....	.....	.....	.....	.....	.....	.....	79
3	.....	.....	.....	.....	.....	.....	.....	80
6,836	5,620	.....	.....	11,076	12,036	8,694	3,810	81
2,640	.....	.....	.....	11,076	6,156	7,482	1,560	82
3,604	.....	.....	.....	.....	.....	.....	.....	83
.....	5,620	.....	.....	.....	5,880	.....	2,250	84

TABLE 42.—HOSIERY AND KNIT GOODS:

		New Jersey.	New York.	North Carolina.	Ohio.	Pennsylvania.
	Machinery—continued.					
	Spindles, number—continued.					
	Doubling—					
85	Woolen	.....	480	.....	.....	800
86	Worsted	.....	76	.....	.....	.....
87	Cotton	.....	.....	.....	.....	180
88	Looms on woolen or worsted goods, number	.....	.....	.....	.....	133
	Narrow, under 50 inch-reed space—					
89	On woolen goods	.....	.....	.....	.....	130
	Hand—					
90	On woolen or worsted goods	.....	.....	.....	.....	3
91	Braiders, number	.....	.....	.....	.....	128
92	Sewing machines, number	382	12,282	191	170	4,612
93	Knitting machines, number	1,335	11,666	1,354	1,147	26,120
	Spring-beard needle—					
94	Flat, ribbed	24	898	.....	13	52
95	Flat, plain	.....	860	.....	5	319
96	Full fashioned, flat, ribbed	.....	24	.....	.....	12
97	Full fashioned, flat, plain	54	77	.....	.....	178
98	Circular, ribbed	.....	274	.....	1	505
99	Circular, plain	126	2,501	22	32	1,272
100	Circular, hosiery, automatic	.....	74	13	.....	754
101	Lamb, and other variety, hand	.....	40	.....	70	66
	Latch needle—					
102	Flat, ribbed	8	599	32	61	619
103	Flat, plain	1	891	15	62	779
104	Full fashioned, flat, ribbed	61	79	11	.....	34
105	Full fashioned, flat, plain	1	34	.....	.....	20
106	Circular, ribbed	466	3,663	472	272	6,962
107	Circular, plain	433	547	104	194	2,913
108	Circular, hosiery, automatic	109	246	629	45	10,215
109	Lamb, and other variety, hand	52	859	58	392	1,420
	Miscellaneous expenses:					
110	Total	$122,374	$2,199,029	$35,920	$99,411	$1,884,722
111	Rent of works	$7,148	$144,387	$4,803	$14,707	$107,905
112	Taxes, not including internal revenue	$10,380	$94,980	$3,822	$3,338	$26,416
113	Rent of offices, insurance, and all sundry expenses not hitherto included	$103,846	$1,818,590	$27,005	$54,015	$1,042,198
114	Contract work	$1,000	$141,072	$290	$27,351	$708,203
	Materials used:					
115	Total cost	$997,110	$20,218,200	$504,027	$807,673	$10,928,113
	Wool—					
116	Foreign, in condition purchased, pounds	88,068	710,834	.....	15,000	582,215
117	Cost	$62,539	$396,246	.....	$8,900	$183,224
118	Domestic, in condition purchased, pounds	67,092	4,817,495	.....	125,500	765,699
119	Cost	$15,166	$1,663,529	.....	$57,840	$291,036
120	Foreign and domestic, etc., scoured, pounds	133,583	4,803,101	.....	123,750	1,069,994
	Animal hair and fur—					
121	Mohair, pounds	.....	626,146	.....	5,053	.....
122	Cost	.....	$41,076	.....	$3,577	.....
123	Buffalo, cow, and other animal hair and fur, pounds	.....	30,415	.....	.....	.....
124	Cost	.....	$2,130	.....	.....	.....
125	Cotton, bales	434	45,937	2,624	100	4,859
126	Pounds	217,148	24,337,305	1,300,378	50,000	2,218,426
127	Cost	$19,307	$1,668,014	$92,754	$3,500	$189,491
	Materials, not made in mill—					
128	Shoddy, pounds	.....	2,105,354	20,000	70,000	106,907
129	Cost	.....	$199,127	$1,400	$10,000	$21,065
130	Wool waste and noils, pounds	16,229	2,923,552	.....	90,000	487,078
131	Cost	$9,774	$817,592	.....	$29,310	$142,244
132	Camel, alpaca, and vicuna noils, pounds	.....	29,224	.....	.....	.....
133	Cost	.....	$14,212	.....	.....	.....
134	Mohair noils, pounds	.....	100	.....	.....	.....
135	Cost	.....	$25	.....	.....	.....
136	Tops, pounds	23,723	47,500	.....	.....	11,875
137	Cost	$15,359	$33,866	.....	.....	$8,985
	Yarns, not made in mill—					
138	Woolen, pounds	43,800	902,234	.....	64,823	409,163
139	Cost	$23,485	$423,411	.....	$38,346	$219,025
140	Worsted, pounds	232,157	1,585,842	.....	455,569	1,115,863
141	Cost	$223,530	$1,221,820	.....	$412,277	$861,068
142	Merino, pounds	10,000	562,040	.....	202,934	350,011
143	Cost	$8,000	$232,011	.....	$54,774	$92,478
144	Cotton, pounds	1,923,684	59,112,590	2,136,604	432,372	38,323,301
145	Cost	$387,413	$8,517,651	$333,058	$98,817	$7,183,052
146	Silk, pounds	3,190	110,660	.....	4,083	18,175
147	Cost	$13,470	$473,073	.....	$13,948	$71,458
148	Spun silk, pounds	5,592	31,899	.....	3,550	12,222
149	Cost	$16,592	$89,271	.....	$12,402	$31,711
140	Linen, pounds	.....	66,000	.....	.....	.....
151	Cost	.....	$48,000	.....	.....	.....
152	Jute, ramie, or other vegetable fiber, pounds	.....	39,782	.....	.....	500
153	Cost	.....	$54,109	.....	.....	$100
154	All other materials which are components of product	$100,251	$1,659,723	$3,460	$8,385	$575,488
155	Soap, pounds	107,069	3,092,438	24,015	68,720	266,371
156	Cost	$4,940	$99,635	$631	$2,639	$12,707
157	Oil for preparing wool for cards or combs, gallons	6,548	173,458	.....	2,600	30,458
158	Cost	$3,170	$40,927	.....	$880	$8,629
159	Chemicals and dyestuffs	$27,102	$211,687	$33,219	$10,688	$271,662
160	Fuel	$13,712	$254,801	$12,533	$7,316	$124,736
161	Rent of power and heat	$1,300	$38,657	$1,229	$2,982	$52,607
162	Mill supplies	$3,080	$94,630	$6,810	$2,015	$48,800
163	All other materials	$45,852	$1,812,802	$12,630	$21,819	$477,665
164	Freight	$3,068	$130,165	$6,303	$11,958	$60,882
165	Cotton yarn made in mill for use therein, pounds	.....	14,497,904	968,000	.....	328,937
	Products:					
166	Total value	$1,748,148	$35,886,048	$1,023,150	$1,576,285	$21,896,063
	Partly manufactured products for sale—					
167	Woolen yarn, all wool, pounds	.....	7,027	.....	.....	72,000
168	Value	.....	$2,307	.....	.....	$36,000
169	Worsted yarn and tops, pounds	.....	200	.....	.....	.....
170	Value	.....	$200	.....	.....	.....
171	Woolen or worsted yarn, union or merino, cotton mixed, pounds	.....	2,000	.....	.....	.....
172	Value	.....	$700	.....	.....	.....
173	Cotton yarn, pounds	.....	211,000	.....	.....	327,612
174	Value	.....	$33,200	.....	.....	$52,013

SUMMARY BY STATES, 1900—Continued.

Rhode Island.	South Carolina.	Tennessee.	Utah.	Vermont.	Virginia	Wisconsin	All other states.[1]	
						1,212		85
								86
592								87
								88
								89
								90
								91
			20	494	565	451	18	92
316	10		101	633	993	2,832	915	93
1,262	785	581						
				79	21	1	5	94
				15	18		1	95
								96
3				6		3	6	97
48				73	6	90		98
		196		226	159	24	12	99
493	66		5		206	5		100
	220	268				41		101
9		12						
					2	38		102
					4	2		103
					71	19		104
						74		105
			11		269	677	106	106
250	207	12	7	164		504	57	107
4	48		38		237	775	708	108
448	244	93	9	69		579	20	109
7			31	1				
$90,900	$38,887	$10,270	$4,577	$108,006	$119,198	$223,216	$79,066	110
$6,157	$25		$2,107	$12,519	$31,998	$16,886	$1,690	111
$5,779	$1,162	$150	$325	$3,220	$5,887	$6,314	$1,379	112
$75,329	$11,100	$10,120	$2,145	$92,267	$81,313	$195,374	$44,007	113
$3,635	$26,600					$1,642	$31,990	114
$1,766,831	$237,622	$248,950	$24,184	$1,115,324	$797,818	$1,176,146	$302,835	115
				86,530		76,394	10,000	116
28,850				$54,256		$12,738	$6,000	117
$15,415				454,404		722,963	52,000	118
706,698			3,000	$180,531		$124,063	$22,400	119
$167,058			$420	540,934		422,423	64,200	120
424,210			1,050					
								121
								122
								123
								124
							145	125
251	935			1,400	8,719	279		
125,733	467,539			711,502	4,136,996	124,310	72,440	126
$14,555	$31,000			$56,691	$276,801	$10,271	$6,464	127
				161,145	90,694	54,833	41,713	128
				$31,859	$5,691	$9,854	$8,280	129
				389,780		147,763		130
				$152,771		$31,248		131
						5,265		132
90,566						$947		133
$22,762								134
								135
								136
33,450								137
$23,305								
181,264			11,625		2,000	276,286	29,000	138
$75,875			$8,176		$800	$115,521	$14,625	139
531,778		20,000	10,450	46,091	2,600	277,930	51,600	140
$188,442		$18,000	$7,915	$43,401	$2,800	$202,348	$41,210	141
8,989				20,878	2,400	109,643	350,000	142
$5,450				$13,647	$870	$37,330	$50,000	143
4,071,207	1,269,500	1,099,000	15,700	1,920,712	2,097,316	1,532,591	418,500	144
$809,552	$191,800	$203,500	$4,300	$408,628	$367,783	$307,672	$88,432	145
125			123		350	1,629		146
$343			$940		$301	$5,562		147
30				60	250	6,642	100	148
$89				$132	$1,000	$19,271	$300	149
							143	150
							$220	151
							400	152
							$68	153
							$10,175	154
$22,974			$500	$47,842	$91,890	$167,013	32,520	155
92,124	650		3,310	95,279	110,714	$213,971	$1,321	156
$3,774	$25		$218	$5,747	$2,066	$8,389	1,683	157
2,311				8,008	1,077	10,735	$672	158
$945				$4,478	$173	$2,851	$26,656	159
$14,794	$7,700	$21,500	$200	$6,683	$4,505	$55,087	$8,722	160
$22,564	$4,262	$1,600	$60	$22,196	$17,909	$25,409	$230	161
$3,151	$60		$120	$55	$850	$1,442	$2,539	162
$48,925	$1,475	$850	$85	$7,736	$7,547	$5,071	$11,959	163
$16,497	$300	$3,500	$450	$73,449	$11,596	$15,535	$2,562	164
$10,361	$1,000		$800	$5,222	$5,236	$18,524		165
				420,000	14,864,000	150,000		
$2,713,850	$392,237	$395,150	$66,357	$1,834,685	$1,498,066	$2,486,813	$607,565	166
								167
								168
								169
51,002								170
$36,103								171
						2,300		172
						$1,380		173
								174

[1] Includes establishments distributed as follows: Alabama, 1; Idaho, 1; Iowa, 2; Kansas, 1; Louisiana, 1; Mississippi, 1; Montana, 1; Nebraska, 1; Oregon, 1; Texas, 1; West Virginia, 2; Missouri, 2.

TABLE 42.—HOSIERY AND KNIT GOODS:

		New Jersey.	New York.	North Carolina.	Ohio.	Pennsylvania.
	Products:					
	Total value—Continued.					
	Partly manufactured products for sale—Continued.					
175	Waste, pounds					105,212
176	Value					$2,952
	Hosiery and knit goods—					
	Hose and half hose—					
	Woolen—					
177	Half hose, dozens	10,000	11,628		63,381	76,460
178	Value	$20,000	$29,233		$99,095	$101,975
179	Hose, dozens	25,325	54,606		25,726	130,740
180	Value	$56,500	$136,744		$37,227	$275,087
	Merino or mixed—					
181	Half hose, dozens	765	11,590		67,700	103,487
182	Value	$1,428	$18,560		$78,000	$152,732
183	Hose, dozens		4,000		37,300	57,131
184	Value		$7,000		$50,000	$103,988
	Cotton—					
185	Half hose, dozens	63,641	33,754	343,337		6,994,945
186	Value	$46,390	$45,754	$331,043		$4,810,822
187	Hose, dozens	694,195	44,494	726,094	39,609	7,863,561
188	Value	$596,537	$86,108	$446,262	$48,079	$7,655,360
189	Silk hose, dozens	1,000	200			6,000
190	Value	$10,000	$4,800			$90,000
	Shirts and drawers—					
191	Merino or mixed, dozens	85,273	1,779,339		9,053	114,183
192	Value	$540,200	$8,394,455		$43,018	$647,285
193	All wool, dozens	8,829	780,753		13,467	78,064
194	Value	$93,060	$2,677,994		$101,638	$368,223
195	All cotton, dozens	95,035	6,636,642	112,875	16,806	2,670,341
196	Value	$190,066	$17,006,721	$196,220	$45,658	$3,456,695
197	Silk or silk mixed, dozens	294	23,785		239	12,449
198	Value	$5,919	$202,124		$2,123	$74,978
	Combination suits—					
199	Merino or mixed, dozens	83	54,153		5,135	29,366
200	Value	$1,185	$378,258		$61,088	$208,844
201	All wool, dozens	66	3,044		1,173	1,115
202	Value	$1,436	$45,783		$26,705	$15,120
203	All cotton, dozens		288,079	5,000	11,517	374,057
204	Value		$904,154	$9,375	$73,052	$702,523
205	Silk or silk mixed, dozens		10,271		342	
206	Value		$36,327		$6,065	
207	Leggins and gaiters, dozens		39,813		50	9,820
208	Value		$104,492		$200	$33,124
209	Gloves and mittens, dozens		567,720		273,940	82,163
210	Value		$1,570,406		$333,258	$167,545
211	Hoods, scarfs, nubias, etc., dozens		171,060		122,102	42,760
212	Value		$533,527		$304,449	$127,785
213	Cardigan jackets, sweaters, athletic goods, fancy jackets, etc., dozens.	338	451,262			86,191
214	Value	$7,130	$2,564,713			$536,707
215	Shawls, dozens	35,000	200		82,960	30,000
216	Value	$63,000	$2,000		$141,380	$96,000
217	Fancy knit goods, wristers, etc., dozens	11,000	67,670		60,000	110,630
218	Value	$54,000	$271,612		$125,000	$454,892
219	Boot and shoe linings, square yards					3,366,890
220	Value					$1,043,799
221	Astrakhans, square yards	17,182	4,500			408,807
222	Value	$11,085	$4,500			$213,053
223	Jersey cloth and stockinette, square yards	13,744	1,563,961			178,199
224	Value	$3,044	$228,729			$47,101
225	All other products	$47,168	$570,523	$40,250	$250	$374,976
226	Amount received for contract work		$25,124			$46,484
	Comparison of products:					
227	Number of establishments reporting for both years	13	187	12	20	236
228	Value for census year	$1,518,936	$30,824,017	$835,396	$1,439,716	$18,982,587
229	Value for preceding business year	$1,349,622	$27,304,179	$715,450	$1,260,457	$16,664,664
	Power:					
230	Number of establishments reporting	15	218	24	19	301
231	Total horsepower	939	21,797	1,755	550	9,612
	Owned—					
	Engines—					
232	Steam, number	14	172	17	14	236
233	Horsepower	736	13,868	663	460	8,246
234	Gas or gasoline, number	2	6		1	9
235	Horsepower	12	36		6	75
236	Waterwheels, number	2	95	6	1	6
237	Horsepower	150	7,069	1,015	35	114
238	Electric motors, number	6	23	3		11
239	Horsepower	26	246	19		134
240	Other power, number					
241	Horsepower					
	Rented horsepower—					
242	Electric	2	261	15	44	560
243	Other kind	13	317	43	5	483
244	Furnished to other establishments, horsepower	3	18			230
	Establishments classified by number of persons employed, not including proprietors and firm members:					
245	Total number of establishments	16	242	24	24	319
246	No employees					1
247	Under 5	2	10		2	13
248	5 to 20	5	40	4	5	64
249	21 to 50		33	8	6	113
250	51 to 100	2	44	6	6	57
251	101 to 250	5	82	5	5	52
252	251 to 500		28	1		14
253	501 to 1,000	2	4			5
254	Over 1,000		1			

SUMMARY BY STATES, 1900—Continued.

Rhode Island.	South Carolina.	Tennessee.	Utah.	Vermont.	Virginia.	Wisconsin.	All other states.[1]	
74,129							2,108	175
$16,657							$569	176
21,111			1,900	5,389	1,500	117,738	5,315	177
$43,722			$5,122	$16,616	$2,100	$337,732	$13,789	178
131,018		30,000	4,250	3,722	1,200	6,527	2,960	179
$357,501		$57,000	$12,790	$6,141	$1,800	$33,030	$9,305	180
30,000				26,831	1,800	128,371	146,480	181
$51,000				$49,405	$2,100	$204,163	$202,575	182
40,000				6,202		57,616	3,115	183
$68,000				$10,233		$108,953	$4,984	184
4,301	306,500	360,000	500	25,661	56,000	91,028	251,440	185
$3,501	$204,750	$203,000	$820	$24,702	$40,350	$87,313	$167,645	186
45,837	420,250	153,500	1,600		299,800	256,586	204,700	187
$81,997	$182,687	$135,150	$4,350		$249,850	$293,359	$167,318	188
			50					189
			$420					190
28,980			80	95,151	22,400	7,785		191
$166,175			$980	$543,409	$46,321	$57,697		192
2,000			100	32,960		3,305	25	193
$21,000			$2,710	$263,940		$31,623	$300	194
102,506			60	131,398	580,744	11,040		195
$259,910			$918	$497,206	$1,108,780	$24,957		196
					1,000	130		197
					$1,500	$11,760		198
3,800			510			1,422		199
$10,440			$11,370			$31,120		200
			350			1,060	10	201
			$8,100			$22,568	$200	202
3,000			700	17,500	40,100	5,130		203
$18,000			$10,410	$96,617	$43,850	$29,376		204
			32			216		205
			$1,140			$28,900		206
			14			11,310	2	207
			$94			$66,889	$16	208
11,200			160			350,550	8	209
$13,090			$407			$824,768	$22	210
			103			5,744		211
			$891			$23,490		212
			245			38,136	60	213
			$3,570			$121,305	$1,690	214
			46			9,000		215
			$479			$24,600		216
			30			1,376		217
			$336			$2,964		218
5,151,255								219
$826,851								220
98,990								221
$30,775								222
834,269				1,243,000				223
$493,644				$280,000				224
$215,484	$4,800		$750	$46,416	$1,415	$117,606	$2,500	225
			$700			$1,260	$36,742	226
11	4	3	3	12	11	23	13	227
$2,509,694	$328,487	$270,500	$40,275	$1,518,311	$1,362,306	$2,422,597	$584,192	228
$2,364,270	$304,000	$225,000	$37,615	$1,434,059	$1,307,528	$2,185,300	$583,223	229
13	6	4	1	14	15	19	13	230
1,231	501	212	5	1,213	1,203	1,169	564	231
14	8	3		11	16	17	18	232
999	456	125		683	1,170	1,107	549	233
						1		234
						4		235
5	2	2		14	1	2		236
130	20	37		526	25	25		237
								238
								239
								240
								241
		25		4	8	20	5	242
102	25	25	5			13	10	243
15						3		244
15	6	4	5	14	15	27	15	245
								246
2						1	4	247
1			2	2		8	4	248
5	1		2	4	1	6	2	249
1	4	1	1	3	5	1	1	250
3	1	1		4	6	7	3	251
2		2		1	3	3	1	252
1						1		253
								254

[1] Includes establishments distributed as follows: Alabama, 1; Idaho, 1; Iowa, 2; Kansas, 1, Louisiana, 1; Mississippi, 1; Montana, 1; Nebraska, 1; Oregon, 1; Texas, 1; West Virginia 2; Missouri, 2.

SILK MANUFACTURES.

SILK MANUFACTURES.

By Franklin Allen, *Expert Special Agent.*

Silk manufacture in the United States has shown a marked development since the census of 1890. It has taken its place as one of the leading industries of the nation and along several lines has established its independence of foreign competition. The causes for these favorable conditions were manifold. Chief among them were the enterprise of the manufacturer, the perfection and reliability of his machinery, and the wise restriction of importation during the less prosperous period of the development of the industry.

Table 1 presents a comparative summary of the industry as returned at each census from 1850 to 1900, inclusive, with the percentages of increase for each decade.

Table 1.—COMPARATIVE SUMMARY, 1850 TO 1900, WITH PER CENT OF INCREASE FOR EACH DECADE.

	DATE OF CENSUS.						PER CENT OF INCREASE.				
	1900	1890	1880	1870	1860	1850	1890 to 1900	1880 to 1890	1870 to 1880	1860 to 1870	1850 to 1860
Number of establishments	483	472	382	86	139	67	2.3	23.6	344.2	[1]38.1	107.5
Capital	$81,082,201	$51,007,537	$19,125,300	$6,231,130	$2,926,980	$678,300	59.0	166.7	206.9	112.9	331.5
Salaried officials, clerks, etc., number	2,657	[2]1,531	[3]	[3]	[3]	[3]	73.5	.....	.....	.....	.....
Salaries	$3,134,352	[2]$1,917,877	[3]	[3]	[3]	[3]	63.4	.....	.....	.....	.....
Wage-earners, average number	65,416	49,382	31,337	6,649	5,435	1,723	32.5	57.6	371.3	22.3	215.4
Total wages	$20,982,194	$17,762,441	$9,146,705	$1,942,286	$1,050,224	$297,116	18.1	94.2	370.9	84.9	253.1
Men, 16 years and over	24,206	17,602	9,375	1,734	1,585	503	37.5	87.8	440.7	9.4	215.1
Wages	$10,699,483	$9,349,531	[3]	[3]	[3]	[3]	14.4	.....	.....	.....	.....
Women, 16 years and over	34,797	28,914	16,396	3,529	3,850	1,220	20.3	76.3	364.6	[1]8.3	215.6
Wages	$9,377,696	$7,970,065	[3]	[3]	[3]	[3]	17.7	.....	.....	.....	.....
Children, under 16 years	6,413	2,866	5,566	1,386	[3]	[3]	123.8	[1]48.5	301.6	.....	.....
Wages	$905,015	$442,845	[3]	[3]	[3]	[3]	104.4	.....	.....	.....	.....
Miscellaneous expenses	$10,264,208	$4,259,623	[4]	[4]	[4]	[4]	141.0	.....	.....	.....	.....
Cost of materials used	$62,406,665	$51,004,425	$22,467,701	$7,817,559	$3,901,777	$1,093,860	22.4	127.0	187.4	100.4	256.7
Value of products, including amount received for contract work	$107,256,258	$87,298,454	$41,033,045	$12,210,662	$6,607,771	$1,809,476	22.9	112.8	236.0	84.8	265.2
Raw silk used, pounds	9,760,770	6,376,881	2,690,482	684,188	462,965	[4]	53.1	137.0	293.1	47.8	.....

[1] Decrease.
[2] Includes proprietors and firm members, with their salaries; number only reported in 1900, but not included in this table. (See Table 23.)
[3] Not reported separately.
[4] Not reported.

Table 1 shows that in the items of capital, wages, materials, and products the industry has maintained a constant increase from 1850 to 1900. In considering such increases the differences in the method and scope of the inquiries at the several censuses should be taken into account. The reports on silk manufacture at prior censuses included establishments engaged in the manufacture of hosiery and knit goods, braids and trimmings, and other small goods in which silk was the fiber of chief value, but in which cotton or wool or both may also have been used. At the present census the statistics of hosiery and knit goods appear in a separate report, and only such braids and trimmings products and other small goods in the manufacture of which silk is the material of predominant value are included in this report. To what extent these differences may have affected the percentages of increase between 1890 and 1900 can not be accurately determined.

In the principal items of inquiry the absolute increase shown by the statistics for 1900, as compared with those for 1890, is less than it was during the preceding decade and, with the exception of capital invested, less than it was in the decade 1870 to 1880. A noteworthy and striking fact shown in the foregoing table is that the value of the products in 1900 was nearly sixty times as great as it was in 1850.

Table 2 presents the statistics of establishments manufacturing a product exceeding $500 in value and those reporting a product of less than $500; the latter were not reported at previous censuses and therefore are omitted from the other tables and their use confined to Table 2.

In addition to the 488 active establishments in the United States during the census year, with a capital of $81,097,276, shown in Table 2, there were 22 idle establishments, with a capital of $427,491, distributed by states as follows:

STATES.	Number of idle establishments.	Capital.	SPINDLES.			LOOMS.		
			Total.	Throwing.	All other.	Total.	Broad.	Ribbon.
Total	22	$427,491	13,534	4,050	9,484	211	183	28
Connecticut	1	20,300	.....	.....	.....	.....	.....	.....
Massachusetts	2	19,000	.....	.....	.....	.....	.....	.....
New Jersey	11	57,810	1,354	250	1,104	185	173	12
New York	1	95,000	.....	.....	.....	.....	.....	.....
Pennsylvania	7	235,381	12,180	3,800	8,380	26	10	16

Adding the statistics of active establishments to those shown in the foregoing statement gives a total of 510 active and idle establishments in the United States, with a capital of $81,524,767; total number of throwing spindles, 1,053,674; accessory spindles, 952,122; broad looms, 37,174; and narrow fabric looms, 7,469.

TABLE 2. SUMMARY OF ESTABLISHMENTS WITH A PRODUCT EXCEEDING $500 AND THOSE WITH A PRODUCT OF LESS THAN $500.

CLASSES.	Number of establishments.	Capital.	Proprietors and firm members.	WAGE-EARNERS.		Miscellaneous expenses.	COST OF MATERIALS USED.		
				Average number.	Total wages.		Total.	Textile.	All other.
Total	488	$81,097,276	482	65,420	$20,982,680	$10,264,444	$62,406,800	$58,093,267	$4,313,533
Establishments with a product exceeding $500	483	81,082,201	477	65,416	20,982,194	10,264,208	62,406,665	58,093,249	4,313,416
Establishments with a product of less than $500	5	15,075	5	4	486	236	135	18	117

CLASSES.	Raw silk thrown into organzine or tram, on commission (pounds).	Value of products, including amounts received for contract work.	NUMBER OF SPINDLES.			NUMBER OF LOOMS.		
			Total.	Throwing.	All other.	Total.	Broad.	Ribbon.
Total	4,300,059	$107,257,376	1,992,262	1,049,624	942,638	44,432	36,991	7,441
Establishments with a product exceeding $500	4,298,659	107,256,258	1,987,404	1,045,304	942,100	44,430	36,989	7,441
Establishments with a product of less than $500	1,400	1,118	4,858	4,320	538	2	2	.....

MATERIALS AND PRODUCTS TWICE INCLUDED.

Table 3 is a comparative summary by states for 1890 and 1900 of the cost of materials and value of products as reported, the cost and value, respectively, of the materials and products twice included, and the cost of materials and value of products exclusive of duplications.

The amount shown in Table 3 as the value of products as reported, $107,256,258, is in excess of the merchantable product of the silk industry in 1900. The value of finished goods is $92,451,212. The tabulation has been made in the form herein presented in order to show statistics comparable with those of the censuses of 1880 and 1890, which included in their totals thrown silks and other materials which, while completed products to the throwster, are materials to the weaver and the trimmings manufacturer. They were designated in subsidiary tables of those censuses as "materials twice

TABLE 3.—ELIMINATION OF MATERIALS AND PRODUCTS TWICE INCLUDED: 1890 AND 1900.

STATES.	Year.	MATERIALS.			PRODUCTS.		
		Cost of materials as reported.	Cost of materials twice included.	Cost of materials exclusive of duplications.	Value of products as reported.	Value of products twice included.	Value of products exclusive of duplications.
United States	1900	$62,406,665	$11,840,267	$50,566,398	$107,256,258	$14,805,046	$92,451,212
	1890	51,004,425	15,537,520	35,466,905	87,298,454	18,143,855	69,154,599
California	1900	146,219	8,420	137,799	255,902	9,300	246,602
	1890	146,406	3,500	142,906	271,912	5,600	266,312
Connecticut	1900	7,198,008	557,713	6,640,295	12,378,981	1,041,714	11,337,267
	1890	6,201,876	889,756	5,312,120	9,788,951	1,665,390	8,123,561
Illinois	1900	187,514	51,042	136,472	421,088	29,893	391,195
	1890	314,855	.....	314,855	785,845	.....	785,845
Maryland	[1]1900	.....	.....	.....	.....	.....	.....
	1890	34,305	.....	34,305	100,361	.....	100,361
Massachusetts	1900	3,823,963	354,697	3,469,266	5,957,532	290,730	5,666,802
	1890	3,251,893	746,175	2,505,718	5,557,569	945,610	4,611,959
New Jersey	1900	21,631,118	5,704,322	15,926,796	39,966,662	2,268,720	37,697,942
	1890	17,908,883	5,205,501	12,703,382	30,760,371	5,354,389	25,405,982
New York	1900	6,570,037	1,144,973	5,425,064	12,706,246	751,034	11,955,212
	1890	10,174,818	1,318,742	8,856,076	19,417,796	1,681,481	17,736,315
North Carolina	1900	99,403	.....	99,403	135,354	64,461	70,893
	[1]1890	.....	.....	.....	.....	.....	.....
Ohio	1900	.....	.....	.....	.....	.....	.....
	1890	13,983	.....	13,983	33,927	.....	33,927
Pennsylvania	1900	19,884,869	3,979,831	15,905,038	31,072,926	9,359,279	21,713,647
	1890	12,094,389	7,017,604	5,076,785	19,357,546	7,953,323	11,404,223
Rhode Island	1900	818,561	37,730	780,831	1,311,333	22,294	1,289,039
	1890	149,763	68,242	81,521	229,062	94,062	135,000
Virginia	1900	720,525	.....	720,525	981,680	940,776	40,904
	[1]1890	.....	.....	.....	.....	.....	.....
All other states	[2]1900	1,326,448	1,539	1,324,909	2,068,554	26,845	2,041,709
	[3]1890	713,254	288,000	425,254	995,114	444,000	551,114

[1] Included in "all other states."
[2] Includes establishments distributed as follows: Delaware, 2; Maine, 1; Maryland, 2; Michigan, 2; New Hampshire, 2; Utah, 2.
[3] Includes establishments distributed as follows: Maine, 1; Michigan, 1; Missouri, 1; North Carolina, 1; Virginia, 1.

included," but in order to avoid the erroneous impression which might be conveyed by the figures without an explanation, and make clear the reasons for this duplication and consequent elimination, the conditions under which organzine and tram are manufactured are stated as follows:

1. Raw silk is purchased by a silk manufacturer who has the same thrown into organzine and tram in a plant owned by him, but located elsewhere than in proximity to his factory, possibly in another state. In this case the raw silk and the organzine and tram are reported as material and product, respectively, by the throwing plant, and the quantity and value of the organzine and tram thus thrown is also reported as material by the manufacturer at his weaving plant, and duplication occurs.

2. Raw silk is purchased by a silk manufacturer and thrown into organzine and tram in larger quantities than his own factory consumption requires, and this excess is reported in the products as organzine and tram for sale to other silk manufacturers. In this case the organzine and tram are also reported as material by the purchasing silk manufacturers, and duplication occurs.

3. Raw silk is purchased by a throwster on his own account and thrown into organzine and tram for sale to silk manufacturers. In this case the raw silk and organzine and tram are reported by the throwster as material and product, respectively, of his mill, and also as material (organzine and tram) by the purchasing silk manufacturer, and duplication occurs.

4. Raw silk is purchased by a silk manufacturer, who has the same thrown into organzine and tram in his silk factory or in a plant owned by him in close proximity thereto. In this case the raw silk is reported as material, and the quantity and value of the organzine and tram is not shown, the conversion of the raw silk thereto being only one of the several stages of the manufacturing process for the finished product, and no duplication occurs.

5. Raw silk is purchased by a silk manufacturer, who has the same thrown, on contract, at a throwing mill not owned or operated by himself. In this case the cost of the raw silk is not reported by the throwster, but only by the manufacturer in the report for his silk factory, and no duplication occurs. (The quantity of raw silk thus thrown by commission throwsters was 4,298,659 pounds, 2,331,456 pounds being thrown into organzine and 1,967,203 pounds into tram.)

Large quantities of spun silk are imported and a very considerable quantity is also manufactured in the United States. The spun silk manufactured in the United States is reported under material as silk waste, and the manufactured product as spun silk by the mill producing the same for sale, and when purchased and used by a silk manufacturer as material is necessarily duplicated. The amount of this duplication can not be more accurately determined than by taking the amount thus reported "for sale" and deducting its value from materials and products alike.

A considerable quantity of manufactured floss and fringe silk is also used by silk trimmings manufacturers, not the product of their own factories, which is properly charged as materials. A duplication to that extent occurs and has therefore been eliminated by deducting its cost from materials and products alike.

Briefly, the elimination of "materials and products twice included" has been accomplished as follows:

1. The cost and value of organzine and tram are deducted as reported, under both "materials" and "products."

2. The value of spun silk reported as a product is deducted from both materials and products.

3. The cost of fringe and floss reported as material is deducted from both materials and products.

4. The amount received for contract work, in all cases, is deducted from the value of the products.

The results obtained are termed in Table 3 "cost of materials, exclusive of duplications," and "value of products, exclusive of duplications." The above method has been followed for the purpose of presenting results comparable with those published in reports of silk manufacture at former censuses. The results as presented in Table 3 will differ from the net value of products presented in the general tables of manufactures. The true "net value" is obtained by deducting from the gross value of products the total amount reported as the cost of materials used in partially manufactured form.

In Table 3, $11,840,267 is estimated to represent the cost of "materials twice included" and $14,805,046 to represent the value of "products twice included" in 1900. At the census of 1890 the corresponding allowances were $15,537,520 and $18,143,855 for materials and products, respectively. The following statement shows the items in detail, for the United States, of materials and products twice included at the present census:

CLASSES.	MATERIALS.		PRODUCTS.	
	Pounds.	Value.	Pounds.	Value.
Organzine and tram	2,338,464	$10,539,632	[1]2,468,387	[1]$11,167,191
Fringe and floss, bought as such and used in manufacture	67,984	274,408	67,984	274,408
Spun silk made for sale	437,459	1,026,227	437,459	1,026,227
Amount received for contract work	.....	.....	.....	2,337,220
Total	2,843,907	11,840,267	2,973,830	14,805,046

[1] Organzine and tram "made for sale."

It should be noted that in many instances the products of partial manufacture reported in one state go to some other state to be completed. Hence, in some cases the gross product of a state more nearly represents the

industry in that state than would its finished products. For instance, the value of the gross product of Pennsylvania, amounting to $31,072,926, is much nearer the total value of its manufactures of silk than the sum of $21,713,647, the net value of its products, because a considerable portion of the thrown silk in the state went to other states to be woven into finished products. The relative figures of the number of looms and spindles in Pennsylvania and New Jersey are instructive on this point, the fact being that a considerable number of "throwing" plants in Pennsylvania are operated for account of weaving plants in New Jersey, as explained elsewhere in this report. Thus, it appears that there were 17,641 broad power looms and 2,916 ribbon power looms reported in New Jersey as against 11,135 and 1,785, respectively, in Pennsylvania, while the number of throwing spindles was 275,516 in the former state and 611,670 in the latter.

IMPORTS AND CONSUMPTION OF SILK AND SILK GOODS.

Silk factories depend entirely upon imports for their raw silk material. The quantity and value of the imports, raw silk, spun silk, raw silk waste, and manufactured silk goods for 1850, 1860, 1870, 1880, and each fiscal year between 1880 and 1900, inclusive, together with the value of silk of domestic manufacture at each census from 1850 to 1900, inclusive, are given in Table 4.

Table 4 shows the silk industry of the United States in several of its more important aspects. As the import values of manufactured silk goods are foreign invoice values, an average of about 70 per cent should be added for freight, revenue duty, importers' profits, and occasional advances on imports, to represent cost to consumers. It should be stated in this connection that the figures of import values of manufactured goods at the several periods include the value of sundry articles, of which silk is the chief or only component material, such as silk caps, bonnets, and hats, silk wearing apparel, umbrellas and parasols of silk, and silk buttons.

The value of the domestic manufacture in the last six decennial census periods, when added to the value of foreign manufactured goods imported, presents in the most graphic way the volume of the consumption of silk goods in the United States. This consumption is shown by the table to be steadily increasing.

In 1850 there were 67 establishments reported as engaged in the manufacture of silk goods. Their total product was valued at $1,809,476, an average of $27,007 for each establishment. In 1900 the establishments had increased in number to 483 and the value of the products to $107,256,258, an average product of $222,063 for each establishment. The imports of raw silk in 1850 amounted to 120,010 pounds, valued at $401,385, and it is probable that the total amount was consumed in the silk mills. The imports of raw silk for 1900 amounted to 11,259,310 pounds, valued at $44,549,672, exceeding those for any prior fiscal year of the Government.

TABLE 4.—COMPARATIVE SUMMARY OF IMPORTED SILK MATERIALS, AND OF IMPORTED AND DOMESTIC MANUFACTURED SILK GOODS, 1850 TO 1900.[1]

FISCAL YEAR ENDING JUNE 30—	IMPORTED SILK MATERIALS.							VALUE OF MANUFACTURED SILK GOODS.	
	Total cost.	Raw silk.		Spun silk.		Raw silk waste, including cocoons and noils.		Imported.[2]	Domestic.
		Pounds.	Cost.	Pounds.	Cost.	Pounds.	Cost.		
1850	$401,385	[3] 120,010	$401,385	[4]	[4]	.....	.....	$17,694,658	$1,809,476
1860	1,340,676	[3] 297,877	1,340,676	[4]	[4]	.....	.....	32,961,120	6,607,771
1870	3,055,626	583,589	3,017,958	7,521	$37,668	.....	.....	24,219,981	12,210,662
1880	13,385,134	2,562,236	12,024,699	37,239	111,999	.....	$1,248,436	31,348,948	41,033,045
1881	11,509,008	2,550,103	10,888,264	19,325	60,830	240,310	559,914	32,316,396	.....
1882	13,610,072	2,879,402	12,890,392	14,726	47,296	341,867	672,384	38,280,955	.....
1883	15,269,984	3,253,370	14,043,340	43,812	126,832	1,477,736	1,099,812	33,180,280	.....
1884	13,427,851	3,222,546	12,481,496	91,750	189,722	1,062,342	756,633	37,840,852	.....
1885	13,112,641	3,424,076	12,421,739	78,890	226,412	884,832	464,490	27,880,386	.....
1886	18,696,578	4,754,626	17,232,505	178,383	442,310	2,063,434	1,021,763	27,613,545	.....
1887	20,079,384	4,599,574	18,687,245	172,617	441,299	1,428,517	950,840	30,822,978	.....
1888	20,509,092	5,173,840	19,151,208	197,139	578,950	1,196,482	778,934	32,363,678	.....
1889	19,990,955	5,329,646	18,544,025	274,362	659,045	1,315,478	787,885	34,297,684	.....
1890	25,209,175	5,943,360	23,285,099	411,621	883,644	1,567,080	1,040,432	37,363,143	87,298,454
1891	20,897,502	4,917,688	17,994,654	856,706	1,821,421	1,348,941	1,081,427	35,478,966	.....
1892	26,152,709	7,521,342	24,321,494	489,652	1,093,384	1,312,707	737,831	30,348,796	.....
1893	31,175,837	7,422,430	29,055,557	758,502	1,338,851	1,075,047	781,429	36,581,097	.....
1894	16,953,572	4,936,875	15,627,822	437,428	719,390	945,610	606,360	23,441,139	.....
1895	23,865,675	7,974,810	22,029,068	843,647	1,239,619	1,341,650	596,988	29,783,529	.....
1896	27,762,032	8,000,621	26,246,902	782,796	998,604	1,363,366	516,526	25,629,128	.....
1897	20,001,899	6,513,612	18,496,944	801,336	1,083,616	1,479,832	421,339	25,433,477	.....
1898	33,287,883	10,315,162	31,446,800	956,974	1,177,817	1,772,789	663,266	21,457,249	.....
1899	34,442,215	9,691,145	31,827,061	1,703,794	1,962,588	1,559,238	652,566	23,063,916	.....
1900	48,884,987	11,259,310	44,549,672	2,336,947	3,555,227	1,814,405	780,088	26,803,534	107,256,258

[1] Figures for imported goods, both raw and manufactured, derived from reports of the United States Treasury Department.
[2] Not including spun silk.
[3] Estimated from current prices, only the value being on record.
[4] Not separately reported.

During the fiscal years 1898, 1899, and 1900 there was imported an annual average of 10,421,872 pounds of raw silk, valued at $35,941,178. In the census year 1900, as shown by Table 23, there were consumed in the manufacture of silk goods and silk braids and trimmings 9,760,770 pounds of raw silk, costing $40,721,877. Making allowance for the amount carried over as raw material from year to year, and the considerable quantity used by the wool and cotton textile industries, the consumption of raw silk as obtained for this report agrees closely with the quantities of the imports as reported by the Treasury Department.

During the year 1880 the manufactured silk goods of all varieties imported into the United States were valued at $31,348,948 (foreign value). The gross value of manufactured silk products for the United States for that year was $41,033,045. In 1890 the value of the imports of silk manufactures was $37,363,143, while the gross value of the domestic product was $87,298,454. In 1900 these values were $26,803,549 and $107,256,258, respectively.

In 1860 the silk goods made in the United States as compared with the entire consumption was only 13 per cent. The percentage rose to 38 in 1880,[1] to 55 in 1890,[2] and to 70 in 1900. In broad silk fabrics the domestic production in 1900 was 67.3 per cent of the total estimated consumption of such goods. America now produces 85 per cent of the annual consumption of silk ribbons, the value of imported ribbons representing only 15 per cent. The classes of goods now principally imported from Europe are high novelties, handmade silk velvets, and handmade silk laces which are not as yet made to any appreciable extent here, but, without doubt, will be made in due time. From Japan we are also receiving Habutai and Kaiki silks which, by reason of their extreme lightness in weight, have been in considerable demand in the American markets. American manufacturers expect, however, that international trade returns will show a considerably diminishing percentage of this class of goods in the next few years. The census tables show a production of 8,970,933 yards of velvets and plushes made in the United States by power-loom weaving in the census year. The value of this product is $4,959,971, which is 55.5 per cent of the annual consumption. The annual import of foreign manufactured velvets and plushes during the census year was $2,335,576, foreign invoice value, and allowing 70 per cent additional for revenue duties, freight, insurance, and importers' profits, we find the approximate value to the consumers to be $3,970,479. The present relative position of the silk industry in the United States in the manufacture of broad silks, velvets and plushes, and ribbons, to the consumption of such silk goods annually, is shown by the following statement:

[1] Tenth Census of the United States, Report on Silk Manufacture, by William C. Wyckoff, special agent, page 21.

[2] Eleventh Census of the United States: Report on Manufacturing Industries, Part III, page 215.

	TOTAL.		BROAD SILKS.[1]	
	Value.	Per cent.	Value.	Per cent.
Domestic production	$75,579,966	70.0	$52,152,816	67.3
Imports[2]	32,439,342	30.0	25,379,055	32.7
Consumption	108,019,308	100.0	77,531,871	100.0
	VELVETS AND PLUSHES.		RIBBONS.	
	Value.	Per cent.	Value.	Per cent.
Domestic production	$4,959,971	55.5	$18,467,179	85.7
Imports[2]	3,970,479	44.5	3,089,808	14.3
Consumption	8,930,450	100.0	21,556,987	100.0

[1] Does not include production of tapestry and upholstery silks, value $1,009,835.
[2] Selling value to consumer by adding to invoice value 70 per cent for revenue duties, freight, insurance, and importers' profits.

In the above statement no account is taken of manufactured silk goods exported, such exports being inconsiderable. The domestic production of sewing silks and machine twist, 1,465,575 pounds, valued at $9,274,800, practically represents the entire American consumption, there being no importations of any consequence.

MATERIALS AND PRODUCTS, 1890 AND 1900.

The growth of the silk manufacture during the last half of the century has been in keeping with the growth of other industries, and the returns of the Twelfth Census indicate the continued prosperity of the industry. The increase during the past ten years in the quantity and total cost of the different materials used and in the value of goods manufactured is shown in Table 5.

TABLE 5.—COMPARATIVE SUMMARY OF MATERIALS AND PRODUCTS: 1890 AND 1900.

		1900	1890	Per cent of increase.
Number of establishments		483	472	2.3
Materials used:				
Total cost		$62,406,665	$51,004,425	22.4
Raw silk	pounds	9,760,770	6,376,881	53.1
	cost	$40,721,877	$26,087,371	56.1
Waste silk, cocoons, and noils	pounds	1,667,195	1,357,618	22.8
	cost	$734,539	$1,106,608	[1]33.6
Organzine and tram	pounds	2,338,464	3,305,372	[1]29.3
	cost	$10,539,632	$16,518,979	[1]36.2
Spun silk	pounds	1,550,291	[2]	
	cost	$3,406,059	[2]	
Other silk materials	pounds	74,040	744,223	118.3
	cost	$284,788	$2,638,242	89.9
Yarns, other than silk	pounds	7,116,728	5,624,960	26.5
	cost	$2,406,354	$2,327,684	3.4
Fuel and rent of power and heat		$684,002	$485,516	40.9
All other materials, including mill supplies and freight		$3,629,414	$1,840,025	97.2
Products:				
Total value		$107,256,258	$87,298,454	22.9
Organzine and tram made for sale		$11,167,191	$16,880,366	[1]33.8
Spun silk yarn made for sale		$1,026,227	$1,263,489	[1]18.8
Machine twist and sewing, knitting, embroidery, fringe, floss, and wash silks		$10,246,190	$8,917,844	14.9
Dress goods, figured and plain, and other silk broad goods, except velvets and plushes		$52,152,816	$22,955,750	127.2
Velvets and plushes		$4,959,971	$3,141,026	57.9
Tapestries, curtains, and other upholstery broad goods		$1,009,835	$3,712,332	[1]72.8
Ribbons and laces		$19,270,283	$17,343,197	11.1
Braids and bindings		$1,522,565	$2,771,382	[1]45.1
Dress, cloak, millinery, and military trimmings		$2,295,010	$8,554,566	[1]73.2
All other products		$1,268,950	$1,758,502	[1]27.8
Received for contract work		$2,337,220	[2]	

[1] Decrease. [2] Not separately reported.

It will be noted that Table 5 shows an apparent decrease of 29.3 per cent in quantity and 36.2 in cost of organzine and tram as materials used and 33.8 per cent in value as products manufactured. The explanation for this seeming anomaly lies in the fact that the organzine and tram manufactured by commission or custom throwsters are not included in the statistics for 1900 presented in this report, either as materials used or as products manufactured, although so included in 1890. Therefore, in a comparison of the two censuses, the 2,331,456 pounds of raw silk thrown into organzine and the 1,967,203 pounds thrown into tram by commission throwsters in 1900 should be taken into consideration. As elsewhere explained, the small increase in the number of establishments is partly accounted for by the elimination from this report of 39 braids and trimmings and 78 hosiery and knit goods manufacturers.

The industry has undergone many changes since 1850, when the variety of its products was very limited. The demands of fashion, the adaptability of silk to fancy designs, and the varying proportions in which silk may be used with other materials in fabrics of all kinds have resulted in an almost unlimited variety of products. Much of the silk spun is now consumed in cotton and woolen mills, while the silk mills consume large quantities of cotton and woolen yarns.

There were 1,667,195 pounds of silk waste and noils consumed in the industry in the census year, from which were produced 661,292 pounds of spun-silk yarn. Of this quantity 437,459 pounds were made for sale to textile manufacturers and 223,833 pounds consumed in manufacturing by the spinners of the yarn. Adding 1,550,291 pounds reported as spun silk used as materials, there were 1,774,124 pounds of spun silk consumed by the silk industry in the census year.

The quantity of spun-silk yarns of all grades imported in the fiscal year ending June 30, 1900, was 2,336,946 pounds; adding thereto the amount made in the United States during the census year, 661,292 pounds, we find the total for distribution among the textile industries to be 2,998,238 pounds.

The quantities of raw silk and spun-silk yarns consumed by the textile industries of the United States are reported as follows for the censuses of 1890 and 1900:

	RAW SILK.		SPUN-SILK YARNS.	
	1890	1900	1890	1900
	Pounds.	*Pounds.*	*Pounds.*	*Pounds.*
Silk manufacture	6,376,881	9,760,770	[1]	[2]1,774,124
Cotton manufacture	32,851	342,425	18,583	218,255
Wool manufacture[3]	166,709	70,073	88,785	253,811
Hosiery and knit goods	77,597	162,424	42,744	103,823

[1] Not reported.
[2] Includes 223,833 pounds remanufactured into other silk goods by the spinners.
[3] Including woolen goods, worsted goods, fur hats, felt goods, and carpets.

Table 6 indicates the extent of the further interchange of fibers for the silk industry, and shows the quantity and cost of the different textile materials reported at the censuses of 1890 and 1900 and the cost of all other materials (fuel, mill supplies, etc.), and the percentage which each item forms of the total.

TABLE 6.—COMPARATIVE SUMMARY OF MATERIALS: 1890 AND 1900.

	MATERIALS USED.				PER CENT OF TOTAL.			
	Pounds.		Cost.		Pounds.		Cost.	
	1900	1890	1900	1890	1900	1890	1900	1890
Total materials	22,507,488	17,409,054	$62,406,665	$51,004,425	100.0	100.0	100.0	100.0
Silk materials	15,390,760	11,784,094	55,686,895	46,351,200	68.4	67.7	89.2	90.9
Textile yarns other than silk	7,116,728	5,624,960	2,406,354	2,327,684	31.6	32.3	3.9	4.6
Cotton yarn	6,444,208	(1)	1,830,550	(1)	28.6	.....	2.9	.....
Mercerized cotton yarn	219,561	(1)	165,683	(1)	1.0	.....	0.3	.....
Wool yarn	239,461	(1)	167,770	(1)	1.1	.....	0.3	.....
Mohair yarn	104,810	(1)	107,365	(1)	0.4	.....	0.2	.....
Other yarns	108,388	(1)	134,986	(1)	0.5	.....	0.2	.....
All other materials	.....	.....	4,313,416	2,325,541	.....	.....	6.9	4.5

[1] Not reported separately in 1890.

Table 6 shows but slight differences in the several percentages at the two census periods. Owing to the high cost of silk per pound, the textile yarns other than silk form a much smaller percentage of the total cost of materials than of the total quantity.

The statistics for 1890, as presented in this table, show that establishments engaged in the manufacture of silk and silk goods used silk materials (raw, waste, spun, organzine, tram, etc.) and yarns other than silk amounting to 17,409,054 pounds. Of this total quantity, silk materials formed 67.7 per cent and yarns other than silk 32.3 per cent. In 1900 the same class of materials amounted to 22,507,488 pounds, of which quantity silk materials formed 68.4 per cent and yarns other than silk 31.6 per cent. The total cost of these materials in 1890 was $48,678,884, of which cost silk formed 95.2 per cent and yarns other than silk 4.8 per cent, while the cost in 1900 was $58,093,249, of which amount silk formed 95.9 per cent and yarns other than silk 4.1 per cent.

SEWING SILK AND MACHINE TWIST.

Connecticut continues in the lead in the production of sewing silks and machine twist, its proportion being 47.1 per cent of the total quantity manufactured. Massachusetts is second, its proportion being 30 per cent. These two states produced 77.1 per cent of the total annual output of this class of goods. The following statement shows the output in pounds, for the census year, of the several states in the order of their importance as manufacturers of these products:

	Total.	Sewing, embroidery, and wash silks.	Machine twist.
	Pounds.	*Pounds.*	*Pounds.*
United States	1,465,575	477,658	987,917
Connecticut	690,455	145,032	545,423
Massachusetts	439,664	170,423	269,241
Michigan	124,535	64,000	60,535
Pennsylvania	117,951	74,475	43,476
New York	65,028	18,528	46,500
California	27,942	5,200	22,742

There is very little competition from abroad with domestic manufacturers of sewing silk and machine twist. In fact, the United States product is universally acknowledged as superior in finish and purity of dye to that of any other country, chiefly because only the best Japan and China filatures, dyed unweighted, are used. It is noteworthy that at the Paris Exposition of 1900, the grand prix d'honneur, the highest award given, was awarded to an American exhibitor of this class of silks.

Among the most important changes in the methods of business in this branch of the industry during the past decade are the following:

1. An increase in the use of machine twist for manufacturing purposes has been effected by shortening the lengths from 1-ounce or large spools to 200 and 100 yard spools. While this is a decided convenience and benefit to the smaller manufacturing trade, it entails greater cost to the silk manufacturer in the additional spooling and spools and in preparing the goods for the market. In the early days of the industry—say forty years ago—sewing silk was universally put up in skeins, but with the introduction of sewing machines and their use in the manufacture of clothing and shoes, that practice is now a thing of the past, fully 99 per cent of all machine and sewing silk being, at this time, put up on spools.

2. A decided tendency toward finer sizes of thread. Formerly the average size used was about size A, representing 1,000 yards per ounce. To-day the principal goods sold are double 0 (00), representing 1,600 yards per ounce.

While these changes have been a benefit to the consumer, they subject the silk manufacturer to the additional expense of spooling up 96 or 192 spools instead of 12, and to the further disadvantage of being able to "throw" only 300 pounds of 00 in the time sufficient to "throw" 480 pounds A. The increasing quantities used in the manufacture of clothing and leather goods necessitates the use of an increased quantity of fine sizes for certain parts of the work.

These commercial changes, which are a direct loss to the manufacturer through the increase of his expense account, are indicative of his controlling desire to lead the trade in the direction of greater economies in the distribution of his product, and for that reason are noteworthy.

About two-thirds of the output of machine twist is sold to manufacturers of clothing, shoes, cloaks, etc., one-third being sold to the dry-goods trade in small wares, such as spool silks for the retail dressmaking trade. The manufacturing trade absorbs about one-half of sewings, the remaining one-half being sold as small wares in embroidery silks, knittings, and wash embroidery silks. The sale of embroidery silks has increased phenomenally during the decade, owing to the great vogue of art embroideries for decorative purposes.

Other noticeable features of the decade have been marked improvements in the luster and evenness of the thread, firmness of the twist, and great variety of brilliant, plain, and ombre or shaded colors, perfectly blended. In sewing silks alone a full assortment of colors now runs up to 200.

The following statement illustrates the growth of this branch of the industry, and gives the percentage of increase in quantities produced since the census of 1860:

CENSUS YEAR.	Pounds.	Value of product.	Per cent of increase in quantity.
1850	(1)	[2]$1,209,426	.....
1860	409,429	(1)	.....
1870	516,621	(1)	26.2
1880	[3]791,525	6,783,855	53.2
1890	[3]1,119,825	7,068,213	41.5
1900	1,465,575	9,274,800	30.9

[1] Not reported separately.
[2] All sewing silk; machine twist first made in 1852.
[3] Sewing silk and machine twist only.

BROAD SILK WEAVING.

The salient features of the development of broad silk weaving in the United States during the past decade are four in number:

1. The production of silk taffetas in both black and colors by power looms. This method of producing these goods was first employed in the United States, the production being on a scale of sufficient commercial importance to entitle this country to credit for its success. Later, power loom weaving of taffetas was adopted in Europe as a profitable commercial proposition. Foreign countries are now, therefore, close competitors in the manufacture of these goods, but the credit of original achievement remains with the United States. The

importance of this fact is best realized when we consider that fully one-half of the fabrics produced to-day in the United States on silk power looms are properly included in the "taffeta" class.

2. While a small proportion of the high-class "fancies" consumed in this country is of French origin, the great bulk is made by domestic mills. We are indebted for this result to the energy and versatility of the manufacturers, who during the last decade seized upon the possibility of reprodncing here the grades of French and Swiss "fancies," which by their attractiveness dominated the American market. We have succeeded in manufacturing every variety of checks, stripes, and figured goods (Jacquards) in popular grades. The American silk industry can fairly claim to be unexcelled at the present time in the production of this class of goods.

3. Marked progress in the manufacture of piece-dyed goods woven with raw-silk warps. Continually expanding facilities for piece dyeing in silk manufacturing establishments and in dyehouses have largely increased the output of this description of fabrics. Both piece dyeing and printing have been for many years features of the foremost silk manufacturing establishment in the United States, but recent favoring circumstances have given a great impetus to these branches of the industry. At the present time piece-dyed and printed goods of domestic manufacture have largely replaced the imports from Europe. Formerly the European productions were printed exclusively in Europe. As a consequence of the American tariff, European manufacturers have been shipping a considerable quantity of their goods to this side in the raw or gum to be printed. At the present time both the manufacture and the printing of the fabric are so successfully accomplished in the United States that the domestic production dominates our own markets in these specialties.

4. Under pressure of sharp competition, both foreign and domestic, American manufacturers have been compelled to study more closely the intricate details of manufacturing and to master the economies developed abroad by experience and long practiced there.

Warp-print fabrics have also been manufactured to a large extent in the United States during the past ten years, both in broad silks and in ribbons. Warp-print goods, including tie silks made in this country, have reached such a degree of perfection that at the Paris Exposition of 1900 gold medals were awarded to two American exhibitors of these fabrics.

A similar award was also made to an American exhibitor of plain black silks for the superior weave and finish of the fabric.

A striking feature of the industry is the increase in the number of power looms and the decrease in hand looms. The following statement presents the number of power and hand looms at each census from 1880 to 1900, inclusive:

	1880	1890	1900
Power looms on broad goods	3,103	14,866	36,825
Power looms on narrow goods	2,218	5,956	7,432
Hand looms on broad goods	1,629	413	164
Hand looms on narrow goods	1,524	1,334	9

The power looms used on broad goods in 1900 were classified as follows:

Plain looms, 36 inches or over, reed space	13,077
Plain looms, under 36 inches, reed space	16,161
Jacquard broad looms	7,587

Table 7 presents a summary, by states, of establishments classified according to the number of looms operating on broad silk goods, not including broad looms on velvets and plushes, during the census year. It should be noted that where several mills in the same state are operated by one firm they are treated as one establishment and classified according to the combined total of looms.

VELVETS.—One of the notable developments of the past decade, realizing the earlier ambitions of the Amer-

TABLE 7.—BROAD-SILK WEAVING MILLS, CLASSIFIED BY NUMBER OF LOOMS: 1900.

STATES.	Total number of establishments.	ESTABLISHMENTS CLASSIFIED BY NUMBER OF BROAD LOOMS.								Total number of broad looms.
		Under 50.	50 and under 150.	150 and under 250.	250 and under 500.	500 and under 750.	750 and under 1,000.	1,000 and under 1,250.	1,250 and over.	
United States	239	87	81	29	31	5	2	3	1	35,446
1. New Jersey:										
Paterson	84	26	36	11	10	1				10,475
Outside of Paterson	31	10	8	2	8	1		2		7,077
2. Pennsylvania	56	19	14	10	8	2	2		1	10,662
3. New York	39	20	12	5	2					2,867
4. Connecticut	5		2		2			1		1,894
5. Massachusetts	6	3	2			1				896
6. Rhode Island	4	3			1					533
7. New Hampshire	1			1						209
8. Delaware	2	1	1							191
9. Virginia	1		1							147
10. Maryland	1		1							144
11. North Carolina	2		2							125
12. Maine	1		1							120
13. Michigan	1		1							62
14. Illinois	2	2								34
15. Utah	2	2								8
16. California	1	1								2

ican silk manufacturers, has been the manufacture of velvet in this country on a paying basis. The American consumption of velvets and plushes is not so large as that of other weaves. It is estimated at a value of $8,930,450 annually, but when we realize that mills in the United States are now supplying 55.5 per cent of this amount it becomes evident that the problem of successful production is being solved. The development during the past decade has been principally along the lines of medium grades of black and colored velvets, used largely for millinery and dress trimmings. In these grades the United States is now supplying 75 per cent of the trade consumption. There is a growing tendency to decided improvement in the better grades; also in the successful manipulation of "panne" velvets, and in various styles of fancy velvets, such as checks, stripes, and figures. The yardage of velvets produced in the census year was 5,122,249 yards, the reported value at the factory being $2,479,903.

Germany has been most seriously affected by the competition of the United States in the last ten years. Lyon has well held its own, on account of its new fabrics, styled "velours panne" and "velours mousseline." Its supremacy over Crefeld is due in fact to its higher grades of velvet, produced by using pure silk instead of spun silk and cotton. Lyon continues to excel and control the bulk of the trade in all pile fabrics where the material is reeled silk.

The relative importance of the velvet trade with the United States from these foreign centers is shown by the following figures of their exports to the United States for the past four years.[1]

YEAR.	From Lyon, velvets and plushes.	From Crefeld, silk velvets.	From Crefeld, cotton velvets.
1897	$328,070	$1,263,142	$194,450
1898	345,717	601,849	153,855
1899	304,912	631,256	174,675
1900	498,558	802,876	235,711

PLUSHES.—The production of plushes amounted to 3,848,684 yards, the factory value being $2,480,068. The relative positions of velvets and plushes as to the quantity of each manufactured have been reversed during the past decade. Ten years ago the seal plush and upholstery plush industry in the United States was in a flourishing condition, and continued so for some time; but in 1900 it was much less so, and at the time of writing this report the seal plush industry especially has suffered yet greater decline. The census of 1890 reported a product of velvets and plushes valued at $3,141,026, but though no separate classification of the two items was then made, it was recognized that the output of plushes largely exceeded that of velvets.[2] At this census the yardage and factory cost of both descriptions of goods are given.

Seal plushes are used in the cloak, cape, cap, and trimmings trades. Sharp domestic competition finally reduced prices materially, but the benefit to consumers was of comparatively brief duration. Cheaper and yet cheaper grades of goods were made until, fashion no longer favoring the fabric, the demand declined as stated. The importation of these goods from England, where formerly the largest proportion of them was manufactured, has now entirely ceased.

The development of broad goods weaving in the United States is best illustrated by a comparison of the production of such goods in each census year since 1870, which is shown in the following statement, presenting the yardage, the value, and the per cent of increase in the quantity of broad silk goods manufactured in the United States at the periods mentioned, including tapestry and upholstery silks, velvets, and plushes, and embracing all silk goods and silk-mixed fabrics (woven on broad looms) in which silk is the material of chief value.

CENSUS YEAR.	Yards.	Value of products.	Per cent of increase in quantity.
1870	1,026,422	(1)	.....
1880	10,856,284	$11,224,895	957.7
1890	37,648,220	29,809,108	246.8
1900[2]	97,940,935	58,122,622	160.2

[1] Not reported separately.
[2] The census of 1900 separates the yardage and value as follows: All silk, 68,437,218 yards, valued at $42,573,279; and silk mixed, 29,503,717 yards, valued at $15,549,343.

Table 8 presents, in detail, the production of broad silk goods by yardage, value, and average value per yard for the United States during the census year.

[1] Exports Declared for the United States, quarterly publication United States Department of State.

[2] Eleventh Census of the United States, Report on Manufacturing Industries, Part III, page 217.

TABLE 8.—SILK BROAD GOODS MANUFACTURED: 1900.

CLASSES.	TOTAL.			ALL-SILK BROAD GOODS.			SILK-MIXED BROAD GOODS.		
	Quantity (yards).	Value.	Average value per yard (cents).	Quantity (yards).	Value.	Average value per yard (cents).	Quantity (yards).	Value.	Average value per yard (cents).
Total	97,940,935	$58,122,622	59.3	68,437,218	$42,573,279	62.2	29,503,717	$15,549,343	52.7
Plain and fancies	62,536,803	39,302,821	62.8	53,573,488	33,852,111	63.2	8,963,315	5,450,710	60.8
Jacquards	9,209,695	6,639,322	72.1	7,532,229	5,379,001	71.4	1,677,466	1,260,321	75.1
Piece-dyed	15,890,385	6,210,673	39.1	7,331,501	3,342,167	45.6	8,558,884	2,868,506	33.5
Velvets	5,122,249	2,479,903	48.4	.....	.....	.....	5,122,249	2,479,903	48.4
Plushes	3,848,684	2,480,068	64.4	.....	.....	.....	3,848,684	2,480,068	64.4
Tapestry and upholstery	1,333,119	1,009,835	75.7	.....	.....	.....	1,333,119	1,009,835	75.7

Table 9 presents a summary, by states, of establishments classified according to number of looms operating on velvets and plushes.

TABLE 9.—VELVET AND PLUSH WEAVING MILLS, CLASSIFIED BY NUMBER OF LOOMS: 1900.

STATES.	Total number of establishments.	ESTABLISHMENTS CLASSIFIED BY NUMBER OF LOOMS.				Total number of looms.
		Under 50.	50 and under 150.	150 and under 250.	250 and over.	
United States	15	1	8	1	2	1,543
1. Connecticut	6	.....	4	1	1	787
2. Pennsylvania	4	2	1	.....	1	499
3. New York	2	.....	2	.....	.....	153
4. New Jersey:						
Paterson	2	1	1	.....	.....	86
Outside of Paterson	1	1	.....	.....	.....	18

SILK RIBBONS.

Awards of gold and silver medals were made at the Paris Exposition of 1900 to American manufacturers of plain and faconné ribbons.

The invention of the high-speed ribbon loom, about ten years ago, was a great advance over the so-called "Swiss" and "German" power looms which were used exclusively in this country up to 1889. The new loom was first made in the United States, and in the last few years has reached a high state of perfection. Ease in leveling the harness, handling the warps, and the positive control of the take-up, which enable the looms to be run at continuous high speed, are the marked features of this invention. It has furnished occupation for a new class of labor, women being now generally and profitably employed in this particular grade of work, whereas on the looms formerly in use male labor was a necessity.

It is not too much to say that the equipment of ribbon machinery in the United States is now equal to any commercial demand that may be made upon it in turning out all articles of ribbon known to the trade.

The ribbon looms reported were classified as follows:

Total	7,441
German looms, warps on top	4,471
High-speed looms	2,105
Jacquards	856
Hand looms	9

Table 10 presents a summary, by states, of establishments classified according to number of looms operating on ribbons.

TABLE 10.—SILK RIBBON WEAVING MILLS, CLASSIFIED BY NUMBER OF LOOMS: 1900.

STATES.	Total number of establishments.	ESTABLISHMENTS CLASSIFIED BY NUMBER OF LOOMS.					Total number of looms.
		Under 50.	50 and under 150.	150 and under 200.	200 and under 300.	500 and over.	
United States	115	65	39	5	5	1	7,441
1. New Jersey:							
Paterson	37	19	12	3	3	.....	2,655
Outside of Paterson	5	4	1	.....	.....	.....	261
2. New York	31	16	12	2	.....	1	2,248
3. Pennsylvania	35	23	10	.....	2	.....	1,788
4. Connecticut	5	3	2	.....	.....	.....	294
5. Massachusetts	1	.....	1	.....	.....	.....	144
6. Maryland	1	.....	1	.....	.....	.....	51

THROWING SPINDLES.

Table 11 presents a summary, by states, of establishments classified according to number of organzine and tram spindles.

TABLE 11.—MILLS CLASSIFIED BY NUMBER OF THROWING SPINDLES: 1900.

STATES.	Total number of establishments.	ESTABLISHMENTS CLASSIFIED BY NUMBER OF THROWING SPINDLES.												Total number of throwing spindles.
		Under 2,500.	2,500 and under 5,000.	5,000 and under 7,500.	7,500 and under 10,000.	10,000 and under 12,500.	12,500 and under 15,000.	15,000 and under 20,000.	20,000 and under 25,000.	25,000 and under 40,000.	40,000 and under 45,000.	45,000 and under 50,000.	75,000 and over.	
United States	121	35	21	21	13	8	3	5	8	3	1	2	1	1,045,304
1. Pennsylvania	45	7	3	8	7	4	2	4	5	2	1	1	1	611,670
2. New Jersey:														
Paterson	29	10	7	7	2	1	.....	1	.....	.....	.....	1	.....	171,410
Outside of Paterson	13	5	2	1	.....	2	1	.....	1	1	.....	.....	.....	104,106
3. New York	12	3	4	3	2	.....	.....	.....	.....	.....	.....	.....	.....	47,964
4. Massachusetts	3	1	.....	1	.....	.....	.....	.....	1	.....	.....	.....	.....	31,306
5. Connecticut	9	5	2	.....	1	1	.....	.....	.....	.....	.....	.....	.....	29,662
6. Virginia	2	.....	.....	1	.....	.....	.....	.....	1	.....	.....	.....	.....	28,372
7. North Carolina	2	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	9,680
8. New Hampshire	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3,408
9. Delaware	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3,264
10. Maine	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,622
11. Michigan	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,104
12. Maryland	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	648
13. California	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	88

The number of throwing spindles reported for this census, as shown in Table 11, is 1,045,304; these spindles are classified as follows:

Organzine, first time over	582,180
Organzine, second time over	345,145
Tram spindles	117,979

The total number of accessory spindles, as shown in Table 23, is 942,100, making an aggregate of 1,987,404, as against 1,087,395 similar spindles in 1890 and 426,530 in 1880.

Of the total number of throwing spindles reported at

this census, 58.5 per cent were located in Pennsylvania, the center of the throwing industry. It will be noticed that 20 establishments of the 45 reported in this state operate more than 10,000 spindles, and one as high as 75,000 spindles.

American "throwing" is done principally on belt spinners which are run from 11,000 to 12,000 turns a minute on first time over and 9,000 on second time over. The machines and organizations are inferior to none.

A review of the improvements effected in the past decade in "throwing" machinery will be found appended.

FINISHED SILK GOODS.

Owing to the differences in the schedules of inquiry and in the methods employed at the several censuses, and the changing conditions in the industry, necessitating changes in the classification of the manufactured products, it is not possible to present a table giving comparable items of production for this and preceding censuses.

At this census the aim has been to indicate the production by quantities (yardage and pounds) so far as was possible, as comparison by values is frequently misleading, owing to changes in the price of merchandise. The classification of the products of the loom by their commercial designations as fabrics, which was employed in former censuses, has been abandoned, for the reason that considerable quantities are now woven and sold in the grey, even the sellers, for example, not knowing whether the fabrics would be finished for dress goods, cloak linings, hat linings, or millinery, etc. By the method adopted the yardage of all silk fabrics or silk-mixed goods is shown for 1900. For this reason comparison of production with previous censuses is difficult as to special articles, but it is believed that the change is a wise one, as the former classification is no longer practicable. The following statements present for 1880, 1890, and 1900, respectively, the quantities and values of the finished or merchantable products:

FINISHED GOODS FOR THE CENSUS YEAR 1880.[1]

	Quantity.	Value.
Total value		$34,519,723
Sewing silk	821,528 pounds	776,120
Machine twist		6,007,735
Floss silk		225,025
Dress goods	10,856,284 yards	4,115,205
Satins		1,101,875
Tie silks and scarfs		606,675
Millinery silks		891,955
Other broad goods		627,595
Handkerchiefs		3,881,590
Ribbons	30,129,951 yards	6,023,100
Laces		437,000
Braids and bindings		999,685
Fringes and dress trimmings		4,950,275
Cords, tassels, passementeries, and millinery trimmings		1,866,575
Upholstery and military trimmings		1,392,355
Coach lace and carriage trimmings		37,510
Undertakers', hatters', and fur trimmings		59,805
Mixed goods and silk values therein		519,643

[1] Tenth Census of the United States, Report on Silk Manufacture, by William C. Wyckoff, special agent, pages 25 and 26.

FINISHED GOODS FOR THE CENSUS YEAR 1890.[1]

	Quantity.	Value.
Total value		$69,154,599
Machine twist and sewing silk	1,119,825 pounds	7,068,213
Fringe, knitting, embroidery, and floss silk	329,637 pounds	1,849,631
Dress goods, figures and plain	37,648,220 yards	15,183,134
Tailors' linings		3,011,437
Tie silks and scarfs		919,919
Other broad goods		1,928,036
Handkerchiefs		1,913,224
Velvets and plushes		3,141,026
Upholstery goods:		
Curtains		471,324
Tapestries		1,330,287
Other upholstery goods		1,910,721
Ribbons	25,737,211 pieces	17,081,447
Laces		261,750
Braids and bindings		2,771,382
Gimps and trimmings		3,918,209
Dress and cloak trimmings		4,403,757
Military trimmings		232,600
Hosiery and knit goods:		
Shirts and drawers		26,421
Hosiery		141,183
Mittens, gloves, etc		897,904
Jersey cloth		90,664
Other products		602,330

[1] Eleventh Census of the United States, Report on Manufacturing Industries, Part III, pages 213 and 214.

FINISHED GOODS FOR THE CENSUS YEAR 1900.

	Quantity.	Value.
Total value		$92,451,212
Machine twist	987,917 pounds	5,997,974
Sewing, embroidery, and wash silks	477,658 pounds	3,276,826
Fringe and floss silks	193,659 pounds	696,982
Broad goods, total	97,940,935 yards	58,125,622
Broad silks, all silk, and silk mixed:		
Plain and fancies	62,536,803 yards	39,302,821
Jacquards	9,209,695 yards	6,639,322
Piece-dyed	15,890,385 yards	6,210,673
Velvets	5,122,249 yards	2,479,903
Plushes	3,848,684 yards	2,480,068
Upholstery and tapestry	1,333,119 yards	1,009,835
Ribbons		18,467,179
Laces, nets, veils, veilings, etc		803,104
Braids and bindings		1,522,565
Dress, cloak, millinery, and military trimmings		2,295,010
All other products		1,268,950

COMPARATIVE STATISTICS BY STATES.

Table 12 is a comparative summary, by states, for 1880, 1890, and 1900, of the data reported under the principal heads of the inquiry.

In considering the comparative statistics shown in Table 12, it should be understood that the omission of silk hosiery and knit goods, and of braids and trimmings in which silk was a material of minor value, reduces the increase between 1890 and 1900. The large decrease in New York during the last decade is due, in part, to this omission, which affects, more or less, the statistics for the other states. A noticeable feature shown in Table 12 is the practical disappearance of hand looms and the marked increase in power looms. The number of spindles has increased, since 1880, 363.6 per cent.

The five leading states in silk manufacture at the last three censuses were New Jersey, Pennsylvania, New York, Connecticut, and Massachusetts. The relative

rank of these states with respect to the principal items of information presented in the table varied slightly from time to time as shown in the following statement, the number indicating the rank:

STATES.	NUMBER OF ESTABLISHMENTS.			CAPITAL.			AVERAGE NUMBER OF WAGE-EARNERS.			WAGES.			COST OF MATERIALS USED.			VALUE OF PRODUCTS.		
	1900	1890	1880	1900	1890	1880	1900	1890	1880	1900	1890	1880	1900	1890	1880	1900	1890	1880
New Jersey	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Pennsylvania	2	3	3	2	3	4	2	3	4	2	3	4	2	2	5	2	3	5
New York	3	1	1	4	2	2	3	2	2	3	2	2	4	3	2	3	2	2
Connecticut	4	4	4	3	4	3	4	4	3	4	4	3	3	4	3	4	4	3
Massachusetts	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	5	5	4

Based upon all essential considerations, the states included in the statement rank, at this census, in the order given. The greatest growth is noted in Pennsylvania, which, from a position of comparative insignificance in 1880, has advanced to second place at this census. This may be characterized as one of the principal developments of the industry during the interval. It is a result of the abundance of suitable labor and cheap fuel in the eastern part of the state, advantages which continue to influence the establishment of new silk mills and the removal of old plants from other localities.

TABLE 12.—COMPARATIVE SUMMARY FOR THE UNITED STATES, BY STATES: 1880, 1890, AND 1900.

STATES.	Year.	Number of establishments.	Capital.	SALARIED OFFICIALS, CLERKS, ETC.		AVERAGE NUMBER OF WAGE-EARNERS AND TOTAL WAGES.					Miscellaneous expenses.	Cost of materials used.	Value of products, including amount received for contract work.	Number of spindles.	NUMBER OF LOOMS.		
				Number.	Salaries.	Total number.	Total wages.	Men, 16 years and over.	Women, 16 years and over.	Children, under 16 years.					Total.	Power.	Hand.
United States	1900	483	$81,082,201	2,657	$3,134,352	65,416	$20,982,194	24,206	34,797	6,413	$10,264,268	$62,406,665	$107,256,258	1,987,404	44,430	44,257	173
	1890	472	51,007,537	1,531	1,917,877	49,382	17,762,441	17,602	28,914	2,866	4,259,623	51,004,425	87,298,454	1,087,395	22,569	20,822	1,747
	1880	382	19,125,300	(1)	(1)	31,337	9,146 705	9,375	16,396	5,566	(2)	22,467,701	41,033,045	426,530	8,474	5,321	3,153
California	1900	5	308,847	6	4,998	117	33,055	24	91	2	4,113	146,219	255,902	3,380	2	2	.....
	1890	9	112,283	11	15,276	203	68,290	49	152	2	10,438	146,406	271,912	2,817	36	1	35
	1880	5	164,300	(1)	(1)	151	41,400	20	106	25	(2)	80,995	159,175	350	24	.....	24
Connecticut	1900	38	12,166,775	323	403,423	6,514	2,392,873	2,763	3,585	166	637,450	7,198,008	12,378,981	160,743	2,975	2,975	.....
	1890	35	9,037,042	117	159,273	4,964	1,847,531	1,540	3,301	123	270,426	6,201,876	9,788,951	129,664	1,378	1,372	6
	1880	28	4,436,500	(1)	(1)	3,428	1,026,530	785	1,990	653	(2)	3,311,206	5,881,000	88,825	615	603	12
Illinois	1900	4	259,540	33	51,180	412	121,644	81	310	21	42,410	187,514	421,088	.....	34	27	7
	1890	10	422,096	49	54,314	756	211,322	157	589	10	35,761	314,855	785,845	732	126	44	82
	1880	5	82,000	(1)	(1)	259	72,195	67	135	57	(2)	125,895	244,150	.....	64	13	51
Maryland	[3]1900	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	1890	4	50,400	3	3,600	72	20,633	28	44	.....	3,798	34,305	100,361	6	14	14	.....
	1880	4	20,900	(1)	(1)	82	11,000	12	56	14	(2)	15,760	35,415	.....	39	.....	39
Massachusetts	1900	20	5,649,758	156	227,276	3,110	1,110,324	1,102	1,837	171	382,745	3,823,963	5,957,532	107,312	1,040	1,017	23
	1890	20	3,353,296	223	258,115	2,993	1,038,284	977	1,928	88	484,390	3,251,893	5,557,569	81,435	540	444	96
	1880	22	1,306,900	(1)	(1)	1,826	521,725	353	1,285	188	(2)	1,990,515	3,764,260	30,450	241	88	153
New Jersey	1900	180	29,285,792	959	1,144,512	24,157	9,232,532	11,279	11,679	1,199	4,896,595	21,631,118	39,966,662	536,065	20,572	20,557	15
	1890	132	16,809,927	472	541,570	17,445	6,634,610	7,773	8,773	899	1,356,137	17,908,883	30,760,371	359,364	11,724	11,487	237
	1880	106	6,952,325	(1)	(1)	12,549	4,177,745	4,696	5,360	2,493	(2)	9,678,536	17,122,230	210,783	4,553	2,956	1,597
New York	1900	92	9,800,207	363	514,439	7,861	2,861,818	3,149	4,299	413	1,601,527	6,570,037	12,706,246	136,703	5,268	5,175	93
	1890	185	11,165,918	432	601,336	12,719	4,983,063	4,456	7,983	280	1,123,671	10,174,818	19,417,796	154,969	4,940	3,888	1,052
	1880	151	4,696,775	(1)	(1)	9,633	2,590,025	2,405	5,459	1,769	(2)	5,331,804	10,170,140	67,271	2,086	1,095	991
North Carolina	1900	3	130,376	11	3,455	209	25,420	35	119	55	5,159	99,403	135,354	18,790	125	125	.....
	[3]1890	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	1880	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ohio	1900	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	1890	3	37,830	4	2,512	36	11,173	8	28	.....	2,662	13,983	33,927	96	16	.....	16
	1880	6	24,700	(1)	(1)	135	12,550	21	73	41	(2)	19,495	53,110	.....	22	.....	22
Pennsylvania	1900	121	20,894,023	745	718,776	21,028	4,629,626	5,214	11,565	4,249	2,451,820	19,884,869	31,072,926	942,545	12,949	12,920	29
	1890	66	9,362,063	192	256,049	9,330	2,725,285	2,420	5,617	1,293	939,051	12,094,389	19,357,546	318,215	3,583	3,360	223
	1880	49	1,379,900	(1)	(1)	3,189	678,120	1,000	1,870	319	(2)	1,830,985	3,491,840	25,241	828	566	262
Rhode Island	1900	6	680,252	8	12,320	455	166,675	124	326	5	103,454	818,561	1,311,333	4,212	533	533	.....
	1890	3	122,256	8	8,507	186	53,471	49	107	30	17,427	149,763	229,062	3,393	43	43	.....
	[3]1880	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Virginia	1900	3	594,359	12	12,678	473	105,056	144	228	101	15,300	720,525	981,680	41,798	147	147	.....
	[3]1890	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	1880	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
All other states	[4]1900	11	1,312,272	41	41,295	1,080	303,171	291	758	31	123,635	1,326,448	2,068,554	35,856	785	779	6
	[5]1890	5	534,426	20	17,325	678	138,779	145	392	141	15,862	713,254	995,114	36,704	169	169	.....
	[6]1880	6	61,000	(1)	(1)	85	15,415	16	62	7	(2)	82,510	111,725	3,610	2	.....	2

[1] Not reported separately.
[2] Not reported.
[3] Included in "all other states."
[4] Includes establishments distributed as follows: Delaware, 2; Maine, 1; Maryland, 2, Michigan, 2; New Hampshire, 2; Utah, 2.
[5] Includes establishments distributed as follows: Maine, 1; Michigan, 1; Missouri, 1; North Carolina, 1; Virginia, 1.
[6] Includes establishments distributed as follows: Kansas, 1; Maine, 1; Missouri, 1; New Hampsbire, 1; Rhode Island, 1; Vermont, 1.

CAPITAL.

Table 13 is a comparative statement in detail of capital for 1890 and 1900, by states.

The value of land and buildings owned, as shown by Table 13, is $12,250,905 as compared with $6,904,628 in 1890. The estimated value of hired property as reported at the census of 1890 was $10,335,160, for which $734,268 was paid as rent for tenancy, or 7.1 per cent. In 1900 the amount reported as paid for rent of land and buildings was $591,807, which, assuming that the earning power of property was the same, represented a capital value of $8,335,310. The total amount of capital reported, $81,082,201, does not include the value of land and buildings rented. Compared with the census of 1890, the increase of aggregate capital is 59 per cent, and, specifically, land and buildings owned, 77.4 per cent; machinery, tools, and implements, 46.3 per cent; and cash and sundries, 60.7 per cent. The increase in the value of land and buildings owned, and the decrease in the value of land and buildings hired, as estimated, evidence the steadily growing prosperity of the industry. It is also interesting to note that in 1900 the value of finished goods produced for each dollar of capital invested was $1.14, as compared with $1.36 in 1890, and $1.80 in 1880.

TABLE 13.—COMPARATIVE SUMMARY OF CAPITAL, BY STATES: 1890 AND 1900.

STATES.	Year.	Total.	Land.	Buildings.	Machinery, tools, and implements.	Cash and sundries.
United States	1900	$81,082,201	$2,045,093	$10,205,812	$20,750,449	$48,080,847
	1890	51,007,537	1,691,660	5,212,968	14,181,680	29,921,229
California	1900	308,847	3,600	29,726	44,161	231,360
	1890	112,283	.....	.....	30,409	81,874
Connecticut	1900	12,166,775	282,294	1,597,352	2,061,799	8,225,330
	1890	9,037,042	152,589	1,143,200	1,617,538	6,123,715
Illinois	1900	259,540	15,000	25,000	95,959	123,581
	1890	422,096	33,000	60,000	106,200	222,896
Maryland	[1]1900	.....	.....	.....	.....	.....
	1890	50,400	6,000	1,500	12,400	30,500
Massachusetts	1900	5,649,758	216,341	756,454	707,345	3,969,618
	1890	3,353,296	77,300	287,500	591,908	2,396,588
New Jersey	1900	29,285,792	733,367	2,966,084	7,297,856	18,288,485
	1890	16,809,927	590,919	1,579,160	5,039,564	9,600,284
New York	1900	9,800,207	202,138	586,224	3,061,252	5,950,593
	1890	11,165,918	544,002	832,240	3,612,758	6,176,918
North Carolina	1900	130,376	6,200	52,000	40,525	31,651
	[1]1890	.....	.....	.....	.....	.....
Ohio	[1]1900	.....	.....	.....	.....	.....
	1890	37,830	10,000	5,000	1,750	21,080
Pennsylvania	1900	20,891,023	491,598	3,688,545	6,696,158	10,017,722
	1890	9,362,063	236,850	1,225,652	2,941,679	4,957,882
Rhode Island	1900	680,252	24,955	96,224	165,032	391,041
	1890	122,256	.....	.....	70,364	51,892
Virginia	1900	594,359	12,600	171,440	210,200	197,119
	[1]1890	.....	.....	.....	.....	.....
All other states	[2]1900	1,312,272	57,000	233,763	370,162	651,347
	[3]1890	534,426	41,000	78,716	157,110	257,600

[1] Included in "all other states."
[2] Includes statistics reported by establishments distributed as follows: Delaware, 2; Maine, 1; Maryland, 2; Michigan, 2; New Hampshire, 2; Utah, 2.
[3] Includes statistics reported by establishments distributed as follows: Maine, 1; Michigan, 1; Missouri, 1; North Carolina, 1; Virginia, 1.

WAGE-EARNERS AND OPERATIVES EMPLOYED.

Table 14 presents the number of wage-earners—men, women, and children—by states, from 1870 to 1900, inclusive, with the percentage that each is of the total number.

TABLE 14.—COMPARATIVE SUMMARY OF WAGE-EARNERS, BY STATES: 1870, 1880, 1890, AND 1900.

STATES.	Year.	NUMBER.				PER CENT.		
		Total.	Men, 16 years and over.	Women, 16 years and over.	Children, under 16 years.	Men, 16 years and over.	Women, 16 years and over.	Children, under 16 years.
United States	1900	65,416	24,206	34,797	6,413	37.0	53.2	9.8
	1890	49,382	17,602	28,914	2,866	35.6	58.6	5.8
	1880	31,337	9,375	16,396	5,566	29.9	52.3	17.8
	1870	6,649	1,734	3,529	1,386	26.1	53.1	20.8
California	1900	117	24	91	2	20.5	77.8	1.7
	1890	203	49	152	2	24.1	74.9	1.0
	1880	151	20	106	25	13.2	70.2	16.6
	1870	.....	.....	.....	.....	.....	.....	.....
Connecticut	1900	6,514	2,763	3,585	166	42.4	55.0	2.6
	1890	4,964	1,540	3,301	123	31.0	66.5	2.5
	1880	3,428	785	1,990	653	22.9	58.0	19.1
	1870	1,703	466	1,003	234	27.4	58.9	13.7
Illinois	1900	412	81	310	21	19.7	75.2	5.1
	1890	756	157	589	10	20.8	77.9	1.3
	1880	259	67	135	57	25.9	52.1	22.0
	1870	.....	.....	.....	.....	.....	.....	.....
Maryland	[1]1900	.....	.....	.....	.....	.....	.....	.....
	1890	72	28	44	.....	38.9	61.1	.....
	1880	82	12	56	14	14.6	68.3	17.1
	1870	.....	.....	.....	.....	.....	.....	.....
Massachusetts	1900	3,110	1,102	1,837	171	35.4	59.1	5.5
	1890	2,993	977	1,928	88	32.6	64.4	3.0
	1880	1,826	353	1,285	188	19.3	70.4	10.3
	1870	453	97	286	70	21.4	63.1	15.5
New Jersey	1900	24,157	11,279	11,679	1,199	46.7	48.3	5.0
	1890	17,445	7,773	8,773	899	44.6	50.3	5.1
	1880	12,549	4,696	5,360	2,493	37.4	42.7	19.9
	1870	2,790	733	1,162	895	26.3	41.6	32.1
New York	1900	7,861	3,149	4,299	413	40.1	54.7	5.2
	1890	12,719	4,456	7,983	280	35.0	62.8	2.2
	1880	9,633	2,405	5,459	1,769	25.0	56.7	18.3
	1870	739	154	413	172	20.8	55.9	23.3
North Carolina	1900	209	35	119	55	16.8	56.9	26.3
	[1]1890	.....	.....	.....	.....	.....	.....	.....
	[1]1880	.....	.....	.....	.....	.....	.....	.....
	[1]1870	.....	.....	.....	.....	.....	.....	.....
Ohio	[1]1900	.....	.....	.....	.....	.....	.....	.....
	1890	36	8	28	.....	22.2	77.8	.....
	1880	135	21	73	41	15.5	54.1	30.4
	1870	.....	.....	.....	.....	.....	.....	.....
Pennsylvania	1900	21,028	5,214	11,565	4,249	24.8	55.0	20.2
	1890	9,330	2,420	5,617	1,293	25.9	60.2	13.9
	1880	3,189	1,000	1,870	319	31.4	58.6	10.0
	1870	936	266	655	15	28.4	70.0	1.6

[1] Included in "all other states."

TABLE 14.—COMPARATIVE SUMMARY OF WAGE-EARNERS, BY STATES: 1870, 1880, 1890, AND 1900—Continued.

STATES.	Year.	NUMBER.				PER CENT.		
		Total.	Men, 16 years and over.	Women, 16 years and over.	Children, under 16 years.	Men, 16 years and over.	Women, 16 years and over.	Children, under 16 years.
Rhode Island	1900	155	124	326	5	27.3	71.6	1.1
	1890	186	49	107	30	26.4	57.5	16.1
	[1]1880	.....	.....	.....	.....	.....	.....	.....
	1870	.....	.....	.....	.....	.....	.....	.....
Virginia	1900	473	144	228	101	30.4	48.2	21.4
	[1]1890	.....	.....	.....	.....	.....	.....	.....
	1880	.....	.....	.....	.....	.....	.....	.....
	1870	.....	.....	.....	.....	.....	.....	.....
All other states	[2]1900	1,080	291	758	31	26.9	70.2	2.9
	[3]1890	678	145	392	141	21.4	57.8	20.8
	[4]1880	85	16	62	7	18.8	73.0	8.2
	[5]1870	28	18	10	.....	64.3	35.7	.....

[1] Included in "all other states."
[2] Includes establishments distributed as follows: Delaware, 2; Maine, 1; Maryland, 2; Michigan, 2; New Hampshire, 2; Utah, 2.
[3] Includes establishments distributed as follows: Maine, 1; Michigan, 1; Missouri, 1; North Carolina, 1; Virginia, 1.
[4] Includes establishments distributed as follows: Kansas, 1; Maine, 1; Missouri, 1; New Hampshire, 1; Rhode Island, 1; Vermont, 1.
[5] Includes establishments distributed as follows: New Hampshire, 1; Vermont, 1.

Table 14 shows that in 1870 children were 20.8 per cent of the total operatives in the United States, and in 1900, 9.8 per cent, a marked decrease. During the same period the percentage of women remained the same, while that of men increased from 26.1 per cent cent to 37 per cent. This decrease in the percentage of children took place between 1870 and 1890, for since 1890 the percentage has increased slightly. In some states the decrease in the percentage of children is even more marked, ranging from 32.1 per cent to 5 per cent in New Jersey. In contrast to this, the proportion of children in Pennsylvania has increased during the entire period. It has already been remarked that the prosperity of the throwing industry in this state is partly due to the cheap unskilled labor obtainable in the smaller towns, and this increase in the proportion of children employed corroborates the statement.

Table 15 presents the skilled and unskilled operatives, weavers, and spinners, winders, and warpers, including unskilled employees, by states, for 1900.

TABLE 15.—WAGE-EARNERS CLASSIFIED BY OCCUPATION, BY STATES: 1900.

STATES.	TOTAL.			WEAVERS.														SPINNERS, WINDERS, WARPERS, ETC.		
				Total.			Broad silks.			Ribbons.			Velvets and plushes.			All other.					
	Men.	Women.	Children.	Men.	Women.	Children.	Men.	Women.	Children.	Men.	Women.	Children.	Men.	Women.	Children.	Men.	Women.	Children.	Men.	Women.	Children.
United States	24,206	34,797	6,413	15,360	13,057	667	8,917	9,188	235	3,725	1,467	21	881	510	150	1,837	1,892	261	8,846	21,740	5,746
California	24	91	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	24	91	2
Connecticut	2,763	3,585	166	1,446	1,149	39	448	441	.....	21	200	7	565	141	.....	412	367	32	1,317	2,436	127
Illinois	81	310	21	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	81	310	21
Massachusetts	1,102	1,837	171	311	282	8	301	208	.....	.....	40	.....	.....	.....	.....	10	34	8	791	1,555	163
New Jersey	11,279	11,679	1,199	7,992	4,818	116	5,491	3,548	38	1,762	502	3	48	5	.....	691	763	75	3,287	6,861	1,083
New York	3,149	4,299	413	2,373	1,497	98	899	824	2	1,014	203	10	109	20	.....	351	450	86	776	2,802	315
North Carolina	35	119	55	.....	38	.....	.....	38	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	35	81	55
Pennsylvania	5,214	11,565	4,249	3,020	4,916	401	1,645	3,777	191	885	517	1	149	344	150	341	278	59	2,194	6,649	3,848
Rhode Island	124	326	5	104	156	.....	74	156	.....	.....	.....	.....	10	.....	.....	20	.....	.....	20	170	5
Virginia	144	228	101	.....	12	.....	.....	12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	144	216	101
All other states[1]	291	758	31	114	189	5	59	184	4	43	5	.....	.....	.....	.....	12	.....	1	177	569	26

[1] Includes the statistics reported by establishments distributed as follows: Delaware, 2; Maine, 1; Maryland, 2; Michigan, 2; New Hampshire, 2; Utah, 2.

Table 15, considered in connection with Tables 6, 8, 9, and 10, presenting the number of looms, spindles, etc., indicates in a measure the relative position of the several states with reference to the production of the various silk products.

COUNTIES LEADING IN SILK MANUFACTURE.

Table 16 shows the number of establishments, capital, number of wage-earners, total wages, and value of products in counties manufacturing a product exceeding $1,000,000 in value.

TABLE 16.—COUNTIES MANUFACTURING PRODUCTS EXCEEDING $1,000,000 IN VALUE: 1900.

COUNTIES.	Number of establishments.	Capital.	WAGE-EARNERS.		Value of products.
			Average number.	Total wages.	
Connecticut:					
Fairfield	5	$1,207,927	903	$354,265	$1,657,954
Hartford	3	6,340,705	2,546	1,064,908	4,613,243
New London	6	2,180,524	1,181	440,427	2,316,810
Tolland	10	593,933	581	162,521	1,360,518
Massachusetts:					
Hampden[1]					
Hampshire	3	2,768,120	1,196	437,412	2,584,214
New Jersey:					
Hudson	19	6,581,756	4,703	1,825,996	7,925,620
Morris	5	723,766	857	248,509	1,424,837
Passaic	140	19,192,756	16,150	6,366,334	26,329,792
Warren	5	1,556,930	1,303	416,323	2,174,705
New York:					
New York	50	4,428,148	4,001	1,579,314	6,757,544
Kings	10	859,138	653	287,199	1,042,199
Queens	6	1,718,848	823	344,330	1,632,651
Pennsylvania:					
Blair[1]					
Lackawanna	14	2,392,256	3,313	528,433	4,185,179
Lancaster	5	524,367	1,396	284,524	1,622,494
Lehigh	13	3,321,009	3,614	894,152	4,780,909
Luzerne	8	1,115,449	1,207	229,520	1,513,833
Lycoming[1]					
Northampton	10	1,978,804	1,947	469,281	3,249,776
Northumberland[1]					
Philadelphia	28	3,813,532	2,506	826,456	4,531,794
Schuylkill[1]					
All other counties[2]	9	4,329,575	3,244	861,495	7,264,660

[1] Included in "all other counties."
[2] Includes counties having less than 3 establishments, distributed as follows: Massachusetts: Hampden, 2; Pennsylvania: Blair, 1; Lycoming, 2; Northumberland, 2; Schuylkill, 2.

The leading counties in silk manufacture, according to Table 16, are Passaic, Hudson, and Warren, N. J.; New York, Kings, and Queens counties, which are comprised in the city of Greater New York; Lehigh, Philadelphia, Lackawanna, and Northampton, Pa.; Hartford and New London, Conn.; and Hampshire, Mass.

BRAIDS AND TRIMMINGS.

Table 17 presents, by states, the establishments manufacturing silk trimmings and braids, apportioning them among the silk, cotton, and woolen industries and showing the cost of the several textile materials used and the value of the products.

The figures appearing under the headings "Cotton" and "Wool" do not appear elsewhere in the silk tables. To properly present the entire braids and trimmings industry, however, it was necessary to include them.

It should also be noted that this table includes 19 establishments which, although manufacturing braids and trimmings as by-products, produce other silk goods of greater value, and are classified as silk manufactories.

In censuses prior to 1900 all establishments making braids and bindings, fringes and gimps, dress and cloak trimmings, millinery and military trimmings, etc., of which silk was a component material, were classed as silk establishments. At this census the number is limited to those which have reported silk as the material of greatest value. If, as in previous censuses, all establishments using silks were included, the gross product, as shown by Table 17, would be $7,785,699, and the number of establishments 105. In 1880 the reported production was $9,306,205; in 1890 it was $11,325,948. At the present census $4,059,053 is given as the product of 66 establishments classified as silk, $1,615,707 as the production of 26 establishments classified as cotton, and $2,110,939 as the production of 13 establishments classified as woolen.

The principal centers of the trimmings trade are New York city and Philadelphia, and the elimination of so many of these establishments from the silk tabulation in this census especially affects New York.

TABLE 17.—BRAIDS AND TRIMMINGS, WITH COST OF TEXTILE MATERIALS, CLASSIFIED BY PRINCIPAL TEXTILE COMPONENTS, BY STATES: 1900.

STATES.	TOTAL.						SILK.					
	Number of establishments.	Cost of textile materials.				Value of products.	Number of establishments.	Cost of textile materials.				Value of products.
		Total.	Silk.	Cotton.	Wool.			Total.	Silk.	Cotton.	Wool.	
United States	105	$3,083,804	$1,330,298	$942,715	$810,791	$7,785,699	66	$1,565,417	$1,037,891	$272,503	$255,023	$4,059,053
Connecticut	5	20,000	18,000	1,500	500	38,685	5	20,000	18,000	1,500	500	38,685
Illinois	4	160,210	69,421	40,063	50,726	421,088	4	160,210	69,421	40,063	50,726	421,088
Massachusetts	11	261,532	120,912	58,036	82,584	601,425	9	230,078	120,912	26,582	82,584	533,527
New Jersey	8	93,416	44,751	42,516	6,149	262,963	6	61,622	44,151	11,668	5,803	162,755
New York	51	1,375,774	501,691	394,989	479,094	3,434,980	28	455,625	316,454	84,126	55,045	1,374,305
Pennsylvania	21	1,026,777	442,353	399,381	185,043	2,798,278	9	491,787	335,783	102,334	53,670	1,300,413
All other states[1]	5	146,095	133,170	6,230	6,695	228,280	5	146,095	133,170	6,230	6,695	228,280

[1] Includes establishments distributed as follows: California, 2; Michigan, 1; Rhode Island, 2.

TABLE 17.—BRAIDS AND TRIMMINGS, WITH COST OF TEXTILE MATERIALS, CLASSIFIED BY PRINCIPAL TEXTILE COMPONENTS, BY STATES: 1900—Continued.

STATES.	COTTON.						WOOL.					
	Number of establishments.	Cost of textile materials.				Value of products.	Number of establishments.	Cost of textile materials.				Value of products.
		Total.	Silk.	Cotton.	Wool.			Total.	Silk.	Cotton.	Wool.	
United States	26	$680,885	$88,132	$532,549	$60,204	$1,615,707	13	$837,502	$204,275	$137,663	$495,564	$2,110,939
Connecticut												
Illinois												
Massachusetts	2	31,454		31,454		67,898						
New Jersey	2	31,794	600	30,848	346	100,208						
New York	13	319,796	29,182	241,439	49,175	678,017	10	600,353	156,055	69,424	374,874	1,382,658
Pennsylvania	9	297,841	58,350	228,808	10,683	769,584	3	237,149	48,220	68,239	120,690	728,281
All other states[1]												

[1] Includes establishments distributed as follows: California, 2; Michigan, 1; Rhode Island, 2.

SKEIN DYEING, PIECE DYEING, PRINTING, AND FINISHING.

The following tables present the statistics of dyeing, printing, and finishing silk goods and other textile yarns and silk-mixed fabrics, including both the work done in silk manufacturing establishments and that done in establishments engaged exclusively in dyeing, printing, and finishing. Table 18 shows the statistics of skein dyeing; Table 19, piece dyeing; Table 20, printing; and Table 21, finishing.

TABLE 18.—SKEIN DYEING IN SILK MILLS AND DYEING PLANTS, FOR SILK MANUFACTURE, BY STATES: 1900.

STATES.	Number of establishments.	Amounts charged for work done in dyeing plants.	Aggregate.	SILK.					OTHER YARNS.				
				Total.	Reeled.		Spun.		Total.	Cotton.		Wool.	
					Colors.	Black.	Colors.	Black.		Colors.	Black.	Colors.	Black.
			Pounds.	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*
United States	95		12,175,988	9,875,477	5,551,313	3,393,871	621,043	309,250	2,300,511	1,067,589	1,049,215	100,658	83,049
Total in silk mills	58		5,952,391	3,936,970	1,793,955	1,541,785	425,216	176,014	2,015,421	925,255	981,559	52,658	55,949
Total in dyeing plants	37	$4,305,809	6,223,597	5,938,507	3,757,358	1,852,086	195,827	133,236	285,090	142,334	67,656	48,000	27,100
Connecticut:													
Silk mills	17		1,787,934	1,223,435	511,298	445,999	203,181	62,957	564,499	113,830	450,669		
Massachusetts:													
Silk mills	8		1,150,790	707,432	263,700	350,083	71,151	22,498	443,358	122,109	224,642	45,658	50,949
New Jersey:													
Silk mills	13		1,207,345	1,098,655	838,582	257,844	2,139	90	108,690	25,640	83,050		
Dyeing plants	22	3,927,829	5,064,504	5,057,639	3,175,932	1,661,078	132,286	88,343	6,865	3,834	3,031		
New York:													
Silk mills	10		483,921	188,124	98,910	54,431	26,783	8,000	295,797	261,322	25,475	5,000	4,000
Dyeing plants	9	160,063	669,685	391,460	277,869	72,591	28,375	12,625	278,225	138,500	64,625	48,000	27,100
Pennsylvania:													
Silk mills	5		883,035	285,958	29,320	68,023	110,100	78,515	597,077	400,354	196,723		
Dyeing plants	5	215,292	484,158	484,158	300,957	115,817	35,141	32,243					
All other states:[1]													
Silk mills	7		439,366	433,366	52,145	365,405	11,862	3,954	6,000	2,000	1,000	2,000	1,000
Dyeing plants	1	2,625	5,250	5,250	2,600	2,600	25	25					

[1] Includes establishments distributed as follows: California, 2; Illinois, 1; Maine, 1; Michigan, 2; Rhode Island, 1; Virginia, 1.

TABLE 19.—PIECE DYEING IN SILK MILLS AND DYEING PLANTS, FOR SILK MANUFACTURE, BY STATES: 1900.

STATES.	Number of establishments.	Amounts charged for work done in dyeing plants.	Total.	All silk.	Silk and spun.	Silk and cotton.	Silk and wool.
			Yards.	*Yards.*	*Yards.*	*Yards.*	*Yards.*
United States	23		40,484,911	21,150,585	2,044,630	17,238,471	51,225
Total in silk mills	10		4,464,528	1,224,329	459,693	2,780,156	350
Total in dyeing plants	13	$849,294	36,020,383	19,926,256	1,584,937	14,458,315	50,875
New Jersey:							
Silk mills	4		1,629,181	1,046,938	110,000	471,893	350
Dyeing plants	8	773,229	33,679,486	19,415,550	1,580,625	12,686,436	46,875
New York:							
Silk mills	2		538,310			538,310	
Dyeing plants	4	75,498	2,323,647	497,768		1,821,879	4,000
All other states:[1]							
Silk mills	4		2,297,037	177,391	349,693	1,769,953	
Dyeing plants	1	567	17,250	12,938	4,312		

[1] Includes establishments distributed as follows: Connecticut, 2; Illinois, 1; Pennsylvania, 2.

TABLE 20.—SILK PRINTING IN SILK MILLS AND SILK-PRINTING PLANTS, FOR SILK MANUFACTURE, BY STATES: 1900.

STATES.	Number of establishments.	Amounts charged for work done in silk-printing plants.	Total.	Printed in warps.	PRINTED IN PIECES.		
					Silk.	Silk and spun.	Silk and cotton.
			Yards.	*Yards.*	*Yards.*	*Yards.*	*Yards.*
United States	12		10,239,606	329,678	4,965,893	2,775,689	2,168,346
Total in silk mills	4		3,084,811	16,355	846,704	1,684,524	537,228
Total in silk-printing plants	8	$419,870	7,154,795	313,323	4,119,189	1,091,165	1,631,118
New Jersey:							
Silk mills	2		76,586	7,500	69,086		
Silk-printing plants	4	354,148	5,702,500	313,323	3,723,513	1,055,165	610,469
All other states:[1]							
Silk mills	2		3,008,225	8,855	777,618	1,684,524	537,228
Silk-printing plants	4	65,722	1,452,295		395,676	36,000	1,020,649

[1] Includes establishments distributed as follows: Connecticut, 2; Massachusetts, 1; New York, 2; Pennsylvania, 1.

TABLE 21.—SILK FINISHING IN SILK MILLS AND SILK-FINISHING PLANTS, FOR SILK MANUFACTURE, BY STATES: 1900.

STATES.	Number of establishments.	Amounts charged for work done.	Total.	Total.	Silk.	Silk and cotton.	Silk and wool.
			Yards.	*Pieces.*	*Pieces.*	*Pieces.*	*Pieces.*
United States	54		133,463,540	2,228,346	1,462,594	765,569	183
Total in silk mills	38		44,616,500	762,062	472,584	289,362	116
Total in finishing plants	16	$981,740	88,847,040	1,466,284	990,010	476,207	67
Connecticut:							
Silk mills	7		13,369,510	240,762	71,986	168,776	
New Jersey:							
Silk mills	15		17,845,930	297,949	268,128	29,767	54
Silk-finishing plants	6	419,021	41,706,480	680,608	453,192	227,416	
New York:							
Silk mills	5		4,937,520	82,292	67,240	15,052	
Silk-finishing plants	9	532,436	47,123,280	785,388	536,530	248,791	67
Pennsylvania:							
Silk mills	7		7,336,140	122,269	57,161	65,046	62
All other states:[1]							
Silk mills	4		1,127,400	18,790	8,069	10,721	
Silk-finishing plants	1	283	17,280	288	288		

[1] Includes establisbments distributed as follows: California, 1; Illinois, 1; Maine, 1; Rhode Island, 1; Utah, 1.

Owing to its importance as a distinct industry, the dyeing and finishing of textiles will be presented in a separate report at this census, as it was at the census of 1890. As the various operations of skein dyeing, piece dyeing, printing, and finishing are wholly or partly done in many silk manufacturing plants, a tabulation has been made, covering not only the returns from the independent or professional dye works, print works, and finishing plants, but also those from silk manufacturing plants, which, when combined, possess special interest for silk manufacturers, and, considered in conjunction with other tables presented in this report, embrace all the elements of the silk industry in the United States.

The tables present the number of establishments engaged in the different classes of work, the quantity of goods handled, and the amount charged for the work done by dyeing, printing, and finishing establishments. Skein dyeing embraces all the yarns dyed for the silk industry in the census year. Piece dyeing, printing, and finishing embrace broad goods only, and do not include sewing silk, veilings, veils, etc. Ribbons are not included, as a given number of yards or pieces of ribbon, without designating the width, has no significance. It is to be understood, therefore, that the returns for piece dyeing, printing, and finishing deal only with plain and fancy broad silks, Jacquards, piece-dyed weaves, velvets, plushes, tapestries, and upholstery silks.

Data as to capital invested, operatives employed, wages paid, cost of materials used, and miscellaneous expenses of the independent or professional plants will be found in the separate report on "Dyeing and Finishing of Textiles." The principal object of the foregoing tables is to show the quantities of silk and other textile yarns and silk-mixed fabrics dyed, printed, and finished by and for silk manufacturers.

SKEIN DYEING.—Table 18 shows that there were 8,945,184 pounds of reeled silk, skein dyed in colors and black. The total consumption of reeled silk, including fringe and floss silk, in the census year was 9,828,754 pounds. The balance, 883,570 pounds, represents, with the exceptions noted below, goods woven in the grey and piece dyed.

There were 930,293 pounds of spun silk, skein dyed

in colors and black. The total consumption of spun silk was 1,774,124 pounds. The balance, 843,831 pounds, practically represents goods woven in the grey and piece dyed.

The returns show 2,116,804 pounds of cotton, skein dyed in colors and black. The total consumption of cotton yarns by the silk industry was 6,664,069 pounds. The balance, 4,547,265 pounds, largely represents piece-dyed mixed goods.

The returns show 183,707 pounds of woolen yarns, dyed in colors and black. The total consumption of wool and mohair yarns was 344,271 pounds. The balance, 160,564 pounds, represents piece-dyed mixed goods. "Other yarns" reported as raw materials in the census returns amount to 108,388 pounds.

The marked tendency in recent years to the production of silk-mixed goods, comprising silk, cotton, and wool, and the interchange of the several fibers in the textile industries, reference to which has been made elsewhere in this report, is illustrated by the returns tabulated. In the cotton textile industry the consumption of raw-silk and spun-silk yarns has increased from 51,434 pounds in 1890 to 560,680 pounds in 1900. In the wool textile industry and its several branches the consumption of such materials has increased from 255,494 pounds to 323,884 pounds, and in the hosiery and knit-goods industry an increase from 120,341 pounds in 1890 to 266,247 pounds in 1900 is reported. A considerable quantity of skein-dyed silk yarn is now used as warps by the cotton and woolen manufacturers of New England. The great development of electricity in the United States has utilized a very considerable quantity of skein-dyed silk yarns in covering electric wires.

Piece Dyeing, Printing, and Finishing.—In addition to the piece dyeing of domestic goods, very large quantities of Habutai silks from Japan figure in the returns as dyed and finished in the United States; also cotton-back satins in considerable quantities from Switzerland, Germany, and Lyon, France.

The redyeing and finishing in the United States of dress silks imported in colors, and later turned to other uses in the millinery and trimmings trade, and the refinishing of imported taffetas to suit changed conditions of demand and use, help to account for the apparent large excess of yardage piece dyed and finished by professional plants over the figures of strictly domestic production of piece-dyed goods.

Another consideration is the probable fact that the production of double-width taffetas, 18–36 inches to 27–54 inches wide, in double pieces, may have been returned singly by the manufacturer and doubly by the dyer and finisher.

Silk Printing.—What has been said respecting the piece dyeing of imported goods equally applies to the printing branch of the industry. Foreign-made goods imported in the grey are now printed here as successfully as in Europe.

The item "Amount charged for work done" in the tables indicates payments to the independent or professional establishments, as follows:

Skein dyeing	$4,305,809
Piece dyeing	849,294
Printing	419,870
Finishing	981,740
Total	6,556,713

The proportion of this amount applicable to the silk manufacturers exclusively is included in the item "Contract work," under miscellaneous expenses, in the tables included in this report. From the foregoing description of the methods of the business it is plainly evident that a part of these charges was for account of importers of foreign silks in the piece, and of the domestic users of skein-dyed yarns in other industries. The reported expense of dyeing, finishing, and printing is not the total value of the work performed in these branches of the industry, but represents only the amount charged by the independent or professional establishments, and does not include the value of such work done by silk manufacturers. As one price per yard is charged by a number of concerns which do both piece dyeing and finishing, the apportionment of the returns between these processes was estimated. The principal object of the tabulation was, as stated, to report quantities under the designated headings. The price charged for "finishing" 88,829,760 yards by 15 professional establishments in New York and New Jersey is reported at $981,457. The current price for finishing all silk broad goods is 1 cent per yard, and mixed goods 2½ cents per yard. Other prices current in this branch of the industry are as follows: Piece dyeing (including finishing), all silk, 2½ to 3 cents per yard, and mixed goods, double the price charged for all silk goods. Printing (including finishing), 5 to 7 cents per yard, and warp printing, 7 to 12 cents per yard. In broad goods the average yardage per piece is 60 yards. Some pieces measure only 30 yards, but the great bulk of the production is in 50-yard and 60-yard pieces, while all the foreign cotton-back satins dyed in the United States average 75 yards per piece.

CAPACITY OF AMERICAN MILLS.

There are now in the United States silk manufacturers who turn out over 100,000 pieces of 60 yards each per year, more than half being taffeta weaves; yarn dyers deliver uncharged silk in two days, black and colored organzine and tram, weighted 70 to 80 per cent, in five to six days and heavy charged silk in eight to fourteen days, it being possible to arrange for shorter deliveries when necessary. One yarn dyer is able to turn out and ship 4,500 pounds black and 3,000 pounds

colored daily. Finishing plants are now able to turn out 2,000 pieces per day. Formerly all piece-dyed goods made abroad were dyed in Europe and finished there, but since 1897 the piece-dyeing and printing branches in the United States have greatly enlarged their facilities, and now dye and print not only large quantities of domestic raw goods, but also some imported goods. The domestic production of piece-dyed goods as shown by the census returns is presented in the following statement:

	Quantity.	Value.
	Yards.	
All silk	7,331,501	$3,342,167
Silk mixed	8,558,884	2,868,506
Total	15,890,385	6,210,673

During the last ten years every weave, article, and quality known to mechanical weaving, or which, through alterations on machinery or simplification in manufacturing, could be put in reach of power-loom weaving, have been manufactured in the United States. With the exception only of a few Lyon specialties, which for different reasons are not suitable for mechanical weaving, every style which the silk industry brings to the market is manufactured in the silk mill of to-day, viz:

Pure silk goods, silk and wool, and silk and cotton mixtures and spun-silk fabrics.

Warp prints of all descriptions and piece-dyed and printed goods in every variety.

Plain silks of all weaves; "fancies," from the simplest to the most complicated styles, and Jacquards, brochés, etc.

Light-weight goods, as chiffons, mousselines, marcelines, and the heaviest curtain and upholstery silks.

All the products of the various mills, including the great variety of dress silks, linings, and trimmings; goods for the cloak, necktie, and millinery trades; and silks for the manufacturers of silk waists, skirts, umbrellas, and parasols—all these give most convincing testimony to the many-sidedness of the American weaving mill. That the industry has in a comparatively short space of time achieved such good results may be attributed to the enterprise and intelligence of its leading men, who readily experiment with new and untried methods regardless of trouble and expense, even if there is only small hope of success.

The following is a statement in round numbers of the estimated value of the silk production of Europe and the United States in 1900, by countries, with the percentage that the production of each country forms of the total production. This statement includes only the value of finished goods, and not that of partially manufactured products. The several countries are presented in the order of their importance in the manufacture.

SILK PRODUCTION OF EUROPE AND THE UNITED STATES: 1900.[1]

	Value of annual production.	Per cent of production.
France	$122,000,000	30.9
United States	92,000,000	23.3
Germany	73,000,000	18.5
Switzerland	38,000,000	9.6
Russia (in Europe)	21,000,000	5.3
Austria	17,000,000	4.3
Great Britain	15,000,000	3.8
Italy	13,000,000	3.3
Spain and Portugal	4,000,000	1.0
Total	395,000,000	100.0

[1] International Universal Exposition at Paris: Report of United States Commissioner Peck: Report on Silk Fabrics, contributed by Franklin Allen, juror of the United States in the silk section (class 83). Government Printing Office, Washington, D. C., 1901, page 565.

RELATIVE POSITION OF FRANCE AND THE UNITED STATES.

The annual production of France is claimed to be $122,000,000, distributed as follows:[1]

Lyon	$80,000,000
St. Etienne (ribbons)	20,000,000
Paris	6,000,000
Calais, Le Nord, etc	16,000,000

The Lyon manufactures, therefore, constitute nearly two-thirds of the production of France; they include, however, a considerable quantity of silk and cotton mixture (mélangé), the manufacture of which has been greatly developed at that city. The total is further swollen by including the foulards imported from Japan and China, which are valued at about 15,000,000 francs annually, and, being printed in Lyon, are returned as Lyon manufactures with a value of 20,000,000 francs. Strictly speaking, the value of the silk woven in another country should not be included in any correct statement of the gross volume of the local production. France now consumes somewhat less raw silk than the United States, her consumption being estimated by the Lyon Chamber of Commerce at 9,000,000 pounds, while that of the United States during the census year was 9,760,770 pounds. New York city, the only raw-silk market in America, now holds the first place among the raw-silk markets of the world, Shanghai alone excepted.

More raw silk is sold annually in New York than is consumed in France, which is the largest raw-silk consuming country of Europe. As to the selling value of the product, the United States ranks second, being surpassed by France, which still dominates, without serious competition, the world's markets in church ornaments and chasubles, and Parisian specialties representing the supremacy of Paris fashions for women's wear. Many

[1] From charts exhibited at the Paris Exposition of 1900, indicating the annual production of the principal silk manufacturing countries, prepared by Mr. Marius Morand, secretary of the Chamber of Commerce of Lyon.

of these are made on handlooms, the quantities required in different patterns and styles being so limited that their production in the United States by power-loom weaving would not be profitable.

WORLD'S RAW-SILK SUPPLY.

The quantity, character, and mercantile condition of the raw silk received from the several sources of supply are prime factors in the industry. The price of raw material also has an important influence. Wide variations in price are a great disadvantage. When, on the other hand, the maximum and minimum prices steadily maintain a narrow range the industry is benefited.

Likewise the stimulation of raw-silk production through the development of new centers of industrial activity in silk manufacture, as in the United States, is a general benefit. Steadier and more moderate prices follow increased production, as a rule, and these in time encourage the use of silk in ever-widening channels; the cost of raw silk to the consumer is thereby also greatly diminished. For instance, it is not so many years since the buyers of cocoons in Europe relied upon and received a profit of 10 to 20 francs a kilo for the reeled silk, or 87½ cents to $1.75 a pound, and in the United States, in the earlier days of the industry, the importers of raw silk confidently counted upon an equal profit. The manufacturers of the United States naturally began to import on their own account, and as a result of their competition with the importers, the difference between the price here and the price abroad was reduced to less than $1 per pound. It is sufficient to say that to-day the competition is so healthful, owing to the increasing rivalry to which the United States has so largely contributed, that a small difference in the price per pound often determines whether the purchase is effected here or abroad. In "thrown silk" the contrast is quite as great. Many men now living recall the time when the silk manufacturers paid as high as $4.50 a pound for the process of "throwing" organzine silk. Now the common price paid is from 60 to 75 cents per pound, depending upon the condition in which the silk is reeled where produced.

Table 22 presents the total raw-silk production of the world, showing the production in detail of the several sources of supply, at five-year periods, from 1870 to 1900, inclusive, the weight being given in kilograms, and in the aggregate reduced to pounds.

TABLE 22.—WORLD'S PRODUCTION OF RAW SILK, IN KILOGRAMS AND IN POUNDS.

COUNTRIES.	1900	1895	1890	1885	1880[1]	1875[1]	1870[2]
	Kilograms.	*Kilograms.*	*Kilograms.*	*Kilograms.*	*Kilograms.*	*Kilograms.*	*Kilograms.*
Europe: Total	4,277,000	4,761,000	3,830,000	3,520,000	3,608,000	3,456,800	3,817,000
Italy	3,363,000	3,509,000	2,880,000	2,810,000	.....	.....	3,180,000
France	560,000	896,000	618,000	483,000	.....	.....	637,000
Austria	276,000	266,000	267,000	142,000	.....	.....	.....
Spain	78,000	90,000	65,000	85,000	.....	.....	.....
Levant: Total	1,760,000	1,244,000	707,000	730,000	727,000	760,400	.....
Asia: Total production exported	10,730,000	8,027,000	6,783,000	5,676,000	6,242,000	5,399,700	3,589,400
China, Shanghai[3]	4,756,000	3,358,000	2,914,000	2,695,000	.....	.....	1,680,400
China, Canton	2,253,000	1,394,000	1,529,000	774,000	.....	.....	1,018,000
Japan, Yokohama	3,371,000	3,076,000	2,130,000	1,346,000	.....	.....	423,000
India, Calcutta	350,000	199,000	210,000	861,000	.....	.....	468,000
Aggregate, kilograms	16,767,000	14,032,000	11,320,000	9,926,000	10,577,000	9,616,900	7,406,400
Aggregate, reduced to pounds	36,964,528	30,934,947	24,956,072	21,882,860	23,318,054	21,201,418	16,328,149

[1] Estimated from best information obtainable. [2] Trustworthy figures of the world's supply prior to 1870 can not be given. [3] Tussah silk not included.

The following statement shows the quantity and invoice value of raw silk imported into the United States in each decennial year from 1860 to 1900, inclusive, and the average cost per pound, taken from the "Reports of the Bureau of Statistics of the United States Treasury Department:"

YEAR.	Pounds.	Invoice value.	Average cost per pound.
1860	297,877	$1,340,676	$4.50
1870	583,589	3,017,958	5.17
1880	2,562,236	12,024,699	4.69
1890	5,943,360	23,285,099	3.92
1900	11,259,310	44,549,672	3.96

A rise of $1 per pound in the price to a country using, as the United States now does, about 10,000,000 pounds annually, means, therefore, an increase of about $10,000,000 in the cost of raw material, and must represent that much financial loss to the manufacturers, unless recouped from the consumer.

There have been great variations in the price meanwhile, as is shown by the following quotations:

In 1868 prices of raw silk averaged $8.43 per pound, the highest prices of Blue Elephant Tsatlee, Best Italian No. 1, and Japan Maybash No. 2 averaging $9.29 per pound.

In 1876 the highest prices of the same silks averaged $9.10 per pound.

In 1894 the lowest prices prevailed, the lowest prices of the same silks averaging $2.94 per pound. Canton Filature Best No. 2 was quoted at $2.61 per pound. The world's supply in that year was 31,860,879 pounds.

The recognition by silk reelers of the standards of merit required by the most progressive silk manufacturers is also of great commercial and industrial importance. China and Japan are the two largest contributors to the world's supply from their surplus production. As a result of the close attention given by the progressive Japanese to the requirements of silk manufacturers in the United States, a much larger proportion of the raw silk consumed in the United States is supplied by Japan than by any other country. The percentage of raw silk that each principal producing country contributes to the world's supply, according to the statistics for 1900, shown in Table 22, also the percentage that each country contributes to the consumption of raw silk in the United States, as derived from the import statistics of the Treasury Department for the same period, are shown in the following statement:

COUNTRIES.	Per cent of contribution to world's supply.	Per cent of American consumption.
China	41 8	34.3
Japan	20 1	42.3
Italy	20.1	19.7
France	3.3	3.2
All other countries	14.7	0.5
	100.0	100.0

The production of raw silk in China is an absolutely unknown quantity. When prices in Europe and America are relatively high the supply increases surprisingly. When prices are normal or low the supply decreases. It is manifest, however, that by closer attention to the United States market, China could greatly extend its raw-silk trade with this country. It is to be hoped that an effort will be successfully made to overcome the commercial indifference of Chinese merchants to the trade wants of their customers. The vast amount of capital invested and the large number of operatives employed in the silk industry throughout the world should be, it would seem, a commercial stimulus to China, the greatest producer of raw silk, to perfect its silk-reeling processes by the application of skilled labor, so as to secure a much larger share than now of the profits of a business in which the country has so many natural advantages. The profit of her reelers would be greater if the output of her filatures were better adapted to the requirements of foreign consumers.

In Japan the domestic consumption of raw silk is usually estimated at about 50 per cent of the production, the remainder being exported.

In Italy the domestic consumption is probably about 15 per cent of the production, the remaining 85 per cent being exported to supply the silk manufacturers of France, Switzerland, Germany, Russia, England, and the United States.

DETAILED STATISTICS OF SILK MANUFACTURE.

The detailed statistics for the industry as reported are shown in Table 23 at the end of the report. This table presents separate totals for each state in which there were 3 or more establishments, and groups the statistics for other states so as not to disclose the operations of individual establishments. The establishments are classified according to the character of the ownership, which shows that 132 were owned by individuals, 154 by partnerships, and 197 by corporations. The employees are segregated so as to show for salaried officers and wage-earners separately, the number and salaries or wages of men, women, and children, respectively, and also the average number of wage-earners employed during each month of the year. Separate totals of the different materials and products are shown. The number of machines, spindles, looms, etc., are presented, and the quantities of goods dyed, finished, and printed by silk manufacturing establishments performing such work; also the number of engines, water wheels, electric motors, and other power in use, with their horsepower. The 483 establishments are grouped according to the number of employees in each.

HISTORICAL AND DESCRIPTIVE.

The silk industry has reached the point where its future seems assured as a permanent branch of the textile industries of the United States, and, judged by the commercial effect that its establishment in this country has had upon improving and cheapening the processes of manufacture, and in lowering the cost of silk goods, every American can take pride in this industrial and commercial achievement.

The silk maker's art in the United States was transplanted from Europe, but, like many another transplanted art, it has taken such a firm hold on the business activities of the country that it has become thoroughly domesticated.

The beginning of the industry on this continent dates back to the Spanish conquest of Mexico in the Sixteenth century. At the beginning of the Seventeenth century King James I of England lent his royal favor by bestowing upon the London Company "plenty of silkworms, seed of his own store being the best," and by this company the "seed" was sent out to Jamestown, Va., as one of the means of helping the early colonists.[1]

Simultaneously with this effort of King James to develop silk culture in England and America, Henry of Navarre (Henry IV of France) brought 14,000 mulberry trees from Italy, which were planted in the royal gardens of France.[2] Silkworm eggs were also procured from Italy, and other measures were taken by this patriotic king to encourage the nascent industry in France. It is interesting now to note that the prime minister of the King, the great Duke Sully, looked coldly upon this enterprise, arguing that "Luxury should be repressed, most certainly not encouraged." But the King had been converted to the idea by Oliver de Serres, whom the French honor as "the father of agriculture," and was not moved by the arguments of the minister. Sully, referring to this matter in his Memoirs, 1603, says: "I could not persuade him. 'Are these,' the King said to me, 'the good reasons you have to offer? I would much rather fight the King of Spain in three pitched battles than all those gentlemen of the robe, of the inkstand, and of the city, beside their wives and daughters, whom you will bring down upon me with your fantastic regulations.'"[3]

The industry, thus encouraged in France three hundred years ago, made notable progress both as to culture and manufacture. In America, notwithstanding the efforts of essayists and the premiums and bounties offered by colonial assemblies and by the English Parliament, the planters could not be stirred to much activity in raising silk. Silk culture by the colonists would evidently have been a good thing for British manufacturers, but the record of history is that it had a fitful, uncertain existence. From 1750 to 1772, the period of its greatest activity before the Revolution, the export of raw silk averaged only 500 pounds per annum and rarely exceeded 1,000 pounds in a single year.[4]

For many years after the War of the Revolution premiums and bounties for planting mulberry trees and for producing raw silk were authorized by a number of states. In New England, New York, New Jersey, and Pennsylvania, especially, great interest was taken in the subject. Dr. Ezra Stiles, president of Yale College, at New Haven, Conn., and Dr. Benjamin Franklin, of Philadelphia, were among the most notable promoters of the movement. In December, 1825, the subject of silk culture began to receive national attention, being brought before Congress by a resolution of inquiry introduced by Mr. Miner, of Pennsylvania, and referred to the Committee on Agriculture. This committee reported favorably in the spring of 1826, the report including a resolution directing the Secretary of the Treasury to cause to be prepared a well-digested manual on the growth and manufacture of silk. Inquiries for information on the subject were sent out by the Secretary, Mr. Richard Rush, in 1826; and from the replies and other material a manual was compiled entitled "Letter from the Secretary of the Treasury," dated February 7, 1828. Six thousand copies were printed by order of Congress.[5] This document became known as the "Rush Letter;" it contains 220 pages, besides illustrations of machinery, and is a carefully executed work.

This favorable action and the publication by Congress at the same session, and at many subsequent sessions, of other documents relating to silk culture, together with the serious consideration of the subject by the Congressional Committee on Manufactures, as well as by the Committee on Agriculture, enlisted general attention. Sericulture gained the public ear. Legislatures of several states passed bills for its encouragement, and a most determined effort was made to place silk growing on a paying basis. For ten years all went well. Silk conventions were held in Maryland, New Jersey, New York, and Connecticut, between December, 1838, and April, 1839, and there were many other gatherings devoted to the cause. What soon proved to be a disturbing element had, however, been introduced by an effort to supplant the white mulberry, *Morus alba*, on the leaves of which the worms had been fed, by the so-called Chinese mulberry, the *Morus multicaulis*, on account of the superior qualities claimed

[1] Silk Industry, Paris Exposition, 1867, by Hon. Elliott C. Cowdin, United States commissioner, Washington, D. C., 1868, page 7. Purchas, His Pilgrimes, Vol. IV, page 1777.

[2] Tenth Census of the United States, Report on Silk Manufacture, by William C. Wyckoff, special agent, page 1.

[3] Memoirs of Sully, London, 1778, Vol. V, pages 150–159.

[4] Tenth Census of the United States, Report on Silk Manufacture, by William C. Wyckoff, special agent, page 10.

[5] H. R. Doc. 158, Twentieth Congress, first session.

for it. All the agricultural literature in the country soon became suffused with the descriptions of this wonderful tree. Speculation began, and prices of trees advanced far beyond their value. Large as were the anticipated profits of producing silk, they were insignificant as compared with the fortunes to be made by raising the new mulberry tree. Orchards of it were planted in every state in the Union. With increasing velocity the tide of speculation rose. Trees became of greater value than the silk which they could by any possibility be the means of producing. One writer says: "Prices ranged for trees produced from one bud or cutting and of a single season's growth, from 5 cents to 10, 20, 50 cents, $1, and in some instances $5 apiece."[1]

The list of stock companies formed for raising and manufacturing silk at this period is very long, but as Mr. William C. Wyckoff, writing the report on Silk Manufactures for the Tenth Census of the United States (1880), says of them, "Their lives were very short." The bubble burst in 1839. Silk culturists and manufacturers had everywhere been swept into the rising current. As for the tree speculators, it is related that one who had been among the most successful sent an agent to France with $80,000 to buy trees and cuttings in the winter of 1838–39. Before the whole of his purchase had arrived the crisis had come. The nurseryman had failed for so large a sum that he could never reckon up his indebtedness, and the next spring his *Multicaulis* trees were offered in vain to the neighboring farmers at $1 a hundred for pea brush.[2]

Notwithstanding the favorable climatic conditions both in France and the United States for the growth of mulberry trees and the rearing of silk worms and cocoons, silk culture has dwindled in both countries, because more remunerative occupations are afforded by other lines of industry. Although in France the raisers of cocoons and reelers of silk are protected by a considerable bounty, payable by the French Government to her citizens as against the Italians, that country produces less than 4 per cent of the world's supply of raw silk. Her silk manufacturers are well content to purchase, as America does, the raw silk from Italy, Japan, and China, in all of which countries the ruling rates of wages are much less than in France and very much less than in the United States. Both France and the United States pursue the same fiscal policy of admitting raw silk free of duty and therefore both are on a par in this respect. Under this policy France produces only a small portion of the raw silk needed for its silk manufactures, while in the United States silk culture, which was introduced simultaneously to its stimulation in France three hundred years ago, practically ceased to exist in 1844, although since that date sporadic attempts to revive it have been made in California and more recently in Kansas and at Salt Lake City, Utah.

Meanwhile, step by step, but slowly, improvements have been effected here in the manufacture of silk goods. The making of sewing silk became a household industry in New England, at first by hand, and later by machinery. The manufacture of silk trimmings of various kinds was commenced in 1815 at Philadelphia, and ribbons in 1829, at Baltimore.[3] The invention of the sewing machine in the United States developed a demand for "machine twist," a silk thread specially suited for use on sewing machines and first applied to that purpose in February, 1852. These goods, together with fringes, gimps, and tassels, and a few ribbons, continued to be the principal products of the silk industry in the United States until the outbreak of the Civil War.

One of the foremost silk manufacturers of the United States, the first vice-president of the Silk Association of America, in a recently published treatise on the silk textile industry, correctly sets forth the reasons for its powerful development in recent years, as follows:[4]

> As reasons for the rapid as well as powerful development of the United States silk industry, notwithstanding the competition of well-introduced imported goods and the splendid organization of the importers, and in spite of the mistrust which was felt by consumers for a long time against the domestic goods, we find:
>
> 1. The natural capability of the American merchant and manufacturer, his common sense, enterprise, and self-confidence.
>
> 2. The capital which is always ready to support enterprise in this country in the form of extensive and liberal credits.
>
> 3. The support which is given all these undertakings by the people, by the city and state governments in form of tax privileges, donations of lots, putting up mill buildings, and renting same at a low rate of interest; even in some cases by subscribing a certain amount of the necessary working capital.
>
> 4. The intellectuality of the American technician, who through his inventions of time-saving machinery, which are simply constructed and easy to handle, is, perhaps, unequaled. The operative also is moderate and his common sense makes him especially fit for the manufacturing business.
>
> 5. The easy intercourse between manufacturer and dealer which enables the first to get fully and promptly acquainted with the needs and wants of the consumer.

The last point can not be too strongly emphasized. In a large sense the American manufacturer is his own merchant and distributer. He is in close touch with the dealers and retailers, knows what they want, and manufactures accordingly. Silk manufacturers abroad (especially in France and Switzerland) are fully aware of this requisite to successful trade. The closer silk manufacturers get to the consumer, the greater the success they achieve. When to this genius for trade is added the unconquerable energy and persevering inventiveness of the silk manufacturer in the United States; the superior intelligence and push of the operatives, both skilled and unskilled; the perfection of methods

[1] The Silk Industry of the United States from 1766 to 1874, by A. T. Lilly, Florence, Mass., 1875, page 8.

[2] The Silk Industry of America, by L. P. Brockett, M. D., New York, 1876, page 40.

[3] Manual of American Silk Trade, 1873, by Franklin Allen, secretary of the Silk Association of America, New York, pages 22–23.

[4] Twenty-ninth Annual Report of the Silk Association of America, New York, March 26, 1891, pages 48 and 49.

by "throwsters" in rapidity, certainty, and economy; the simplicity of high-speed looms in weaving; quick deliveries and perfectly satisfactory work in yarn dyeing, piece dyeing, finishing, and printing; and the ready adoption, at whatever cost, of every improvement known anywhere in silk manufacturing, the general excellence of the product manufactured in the United States, and its consequent success, is accounted for.

In England the silk industry has suffered a great decline since 1860. In recent years leading manufacturers there have emphasized the importance of specially organized technical schools for the education of artisans and for teaching drawing and designing to selected pupils. In the United States every large silk plant is a school of design, a teacher of scientific and technical education. All such plants have a corps of skillful designers, and many are in touch with artists and establishments abroad, whence is derived the latest information concerning novelties in all lines of manufacture. Skillful chemists are likewise attached to these plants, and, in fact, all processes of the industry proceed simultaneously under one management. To the clerk and workman is given a certain independence and freedom of action, no restraint being put upon his enterprise. Fulfillment of his duty is all that is required. That such a system improves the working methods and produces better results is plainly evident from the census figures.

IMPROVEMENTS IN THROWING AND WEAVING MACHINERY.

THROWING.—The past decade has not been marked by many changes in the throwing of silk. Efforts have been concentrated upon increasing labor efficiency, in saving waste, and similar economies, demanded by the constantly decreasing scale of prices. Larger mills have been built and equipped with the most modern appliances for heating, lighting, power, and manufacturing; smaller mills have been consolidated into larger establishments, thus lessening the general expenses; antiquated and worn-out equipments have been replaced by modern and more economical machines, the constant effort being to reduce cost of production. The success achieved has not, however, kept pace with the reduction in price of the product; and the throwster during these years has been confronted more or less with the problem of constantly increasing wages demanded by operatives, and decreasing prices paid by the manufacturers.

As regards machinery, the principal efforts have been to save space and processes; winding frames have been improved so as to produce more perfectly wound spools at higher speed, and obviate the necessity for redrawing. In the latest improved winding frame the bobbin is carried by a spindle having two heads resting upon the driving wheels, its bearings being supported upon inclined planes that sustain most of the weight, yet force the spindle into sufficient contact with the friction wheel to secure a positive drive, the double support allowing high speed without throwing out the spindle.

Double-decking the winding frame has also been adopted by some to economize space and has some merits, though not generally adopted.

The doubling frame has also been perfected, allowing the work to be done at about double the speed and with better results; the old "flyer" and "jack-pin" system has been displaced by a cap on the bobbin, by means of which the thread can be drawn off naturally and the desired tension applied alike upon the assembled threads.

In spinning, the belt system, so called, where the spindles are driven by contact with an endless belt instead of with bands, has been adopted in all new installations. The many advantages of this type of frame were at once recognized, and at the present date over one-half of the spinning spindles in the country are of this system, although only first practically introduced in 1889. This belt-drive system adapted to the modern self-oiling spindle instantly won favor and adoption. A double-deck machine of this type quickly followed, giving double the number of spindles in the same space, still further solving the problem of economy and being generally adopted. In 1895 a combined spinner and doubler was designed, and it was soon evident that this invention had solved another great expense-saving problem and at the same time effected an improvement in the quality of the product. In the few years the last system has been practically upon the market 90,000 spindles have been put in use, or 15 per cent of the total number of first-time spindles. The system has, moreover, been introduced into several foreign countries, and it has been adopted by the technical schools of England and Switzerland as the most practical system of spinning organzine. This is a very substantial acknowledgment of the superiority of United States machinery for silk throwing over that of the rest of the world.

During the past ten years efforts have been made to solve the problem of spinning, doubling, and twisting organzine in one process, which have finally resulted in the production of a practical machine, but of the old band-drive system. A machine for this system of the belt-drive type, for which is claimed greater simplicity combined with increased effectiveness, has also been designed. It is too early as yet to say what the future of these machines will be, but they promise a large percentage of saving in the cost of production, with a decided improvement in quality, and at the same time a reduction in the cost of the equipment of a plant.

While during the past decade there have not been such great changes in throwing appliances as distinguished previous decades, there have been many marked improvements on the lines so briefly mentioned, and it can be said, from personal observation in many of the largest spinning mills in Europe, that in every step of

this branch of the silk industry the United States excels; our operatives tend a larger number of spindles; and, in spite of the higher wages paid here, the cost of production, pound for pound, aside from fuel and rents, will in nearly every case prove to be the lowest in the world.

The results from improvements in throwing machinery during the past decade can therefore be broadly summed up in the statement that these improvements have made possible a saving of about 40 per cent in the floor space needed and about 20 per cent in cost of production over the older system, figuring all the savings resulting from less floor space, power, and processes required to turn out a corresponding amount of work.

Weaving.—The rapid strides made in the development of the power loom, together with the skill of American labor, have made the substitution of power looms for hand looms, which has been a noticeable feature of the industry for the last three decades, especially marked during the past decade, so much so that the statistics indicate the practically complete supersession of the hand loom by the power loom, there being in use, as reported, but 173 of the former as compared with 44,257 of the latter.

There are in successful operation in the silk mills of the United States to-day nearly two and a half times as many power looms as there were ten years ago. While improvements have been made constantly in the construction of these power looms ever since their introduction, probably the past ten years have witnessed the most rapid strides in this direction. These improvements have resulted in the production of a loom of high efficiency, equipped with mechanical devices designed for the saving of both time, labor, and material, such as the numerous multipliers, two-weave, leno, swivel, embroidery motions, and many other devices, all arranged to operate automatically, by the use of which marvelous results may be obtained.

Formerly the accomplishment of some of the above results, if possible at all on the power loom, required the use of a long pattern or indicator chain. Some of the principal progress has consisted in the invention of devices for facilitating the saving of such materials as this pattern or indicator chain. By dispensing with this long and cumbersome attachment the loom is made capable of much higher speed.

Among the multipliers particularly worthy of mention, in addition to the well-known multiplier for the box chain, whereby any shuttle box may be called at will, and any color used as long as desired, is the so-called two-weave multiplier, by the use of which two distinct weaves are produced in the loom and indicated from the same pattern chain.

Another multiplier, known as the manifold multiplier, consists of a mechanical device which, when used in addition to the two-weave motion, makes it possible to produce three or more distinct weaves in the loom; each weave may be entirely different from the others. In fact, there is hardly any limit to the number of weaves that may be produced by the use of this mechanism, the change from one weave to the other being made automatically when the loom is in full operation.

Among the many other improvements, the progress made in producing leno effects might be mentioned. Present methods and attachments for producing this class of work are far in advance of the old methods, resulting in much saving of doups and in less breakage of warp threads. The old method of using two beams, one for the whip thread and one for the standard thread, is now generally superseded by taking all the threads from one beam, unless the pattern calls for a design in which the whip thread is longer than the standard thread. Slackeners are used only on such threads as require them, instead of rocking the whole warp beam.

The lappet motion has also been successfully applied to different types of looms during recent years, and at the present time these motions are built with one, two, three, and four bars or rows of needles, producing some beautiful effects on the surface of the goods.

The cross-weave loom produces a novel open-work effect in the woven fabric. A series of forked needles engages, as desired, selected groups of warp threads and crosses them over adjacent groups previous to the forming of the shed. After the passing of the shuttle and the beating up of the lay, the warp threads resume their normal position for plain weaving until again called for the cross-over process. A recent improvement produces an undulating or wavy effect by virtue of a movable reed, whose dents are inclined at different angles instead of being parallel, alternate groups of dents spreading upward, and intermediate groups spreading downward, so that the gradual raising and lowering of the reed produces a spreading of the warp threads at one point and a closing up at another.

The embroidery loom was especially designed for the purpose of making a figure on a light ground of cloth while the cloth is being woven, without waste of stock or material. Although the ground may be a light weight of goods, the figure is thick and compact in appearance. This effect can not be produced on a regular broad-silk loom, as the filling, when not wanted to show in the figure, must be buried in the body of the goods, and, moreover, for this reason there is a considerable waste of material.

Swivel looms built to-day have one, two, or three banks of swivel shuttles, so that it is possible to put as many as three colors in each figure at will with almost no loss or waste of material.

The principal difference between the swivel and embroidery looms as built to-day is that in the former the figures are usually arranged a certain distance apart in the goods, while in the latter a figure the entire width of the goods may be made if desired.

Outside of these special features there are many types of what might be termed standard looms used to-day for the manufacture of broad silks. In this connection special mention should be made of the improvement by which all classes of taffeta effects, formerly made on hand looms only, are now successfully made on power looms.

The highest type of loom designed for best grades of fabrics, both plain and fancy, is fitted with a positive head motion by which the harnesses or shafts are positively raised and lowered. The dobby loom is similar in construction to the above-mentioned loom, but a dobby is substituted in place of the positive head motion, the harness shafts being raised by the dobby but pulled down by springs. The cam loom, the harness shafts being controlled by cams which are positive in their action, is somewhat limited in weaves and designs by reason of the weave being dependent on these cams. On the two first-mentioned classes of looms almost any weave may be produced, the head motion or the dobby being controlled by means of a pattern chain which can be changed or made over at will. On the Jacquard loom the weave is controlled entirely by the Jacquard. On all of these types of looms shuttle-box motions of different capacities may be employed, allowing the use of from one to seven colors.

In the Jacquard, which forms so important a factor in the production of broad silks, there has been nearly as much improvement as in the loom itself, particularly as regards the saving of cards and increased speed. The present double-cylinder cross-border machine accomplishes about the same result on the loom as does the manifold multiplier described above. Attachments are now added to the Jacquard so that, through a suitable intermediate mechanism, the pattern or box chain is not required at all on the loom, the Jacquard cards being so punched that the shuttle boxes are controlled by the Jacquard, thus obviating the possibility of the Jacquard getting out of time with the shuttle boxes of the loom.

In addition to the many improvements referred to in looms designed for broad silks, the changes that have taken place in the development of the ribbon loom must not be overlooked. These looms, as built to-day, are capable of very high speed, and show a great advance over the "Swiss" and "German" types of looms which were almost universally used in this country ten or fifteen years ago. The modern ribbon loom was first designed and built in this country and has been constantly improved, until to-day it has reached a very high state of perfection. Under the old method of handling the warp it was necessary to employ men on the looms. Under the present arrangement of the loom the warp is placed on beams similar to broad-silk looms, and each individual warp is let off automatically from each beam, making it entirely unnecessary for the weaver to go behind the loom for this purpose.

The best type of ribbon loom, the high-speed automatic, embodies all the latest improvements of construction; it is adapted to high-grade Jacquard work, where high speed has been slow of adoption, and to single-shuttle Jacquard work on labels, etc.; it has the automatic let-off system for the warps, is capable of a more uniform weave than the old machine, and has greater productive capacity.

There has recently been perfected a very efficient silk-velvet ribbon loom which is destined to fill a very important place in the ribbon industry. This loom will produce the best quality of silk-velvet ribbon at a very high speed for this class of work, the pile being cut automatically in the loom. It is one of the latest triumphs of American skill in the art of weaving.

The modern power loom is the result of much study and inventive genius, and with it to-day can be produced many fabrics which ten years ago it was impossible to make except by hand. Nowhere has this development been so pronounced and successful as in the United States.

DATE OF THE ESTABLISHMENT OF THE SILK INDUSTRY IN CITIES, TOWNS, ETC.

Incident to the growth of the industry, silk mills have been established in nearly all the New England and Middle states and in some of the Western and Southern states. Pennsylvania has been the greatest gainer in this respect during the last decade. Delaware, Virginia, and North Carolina have also attracted silk mills by liberal inducements to manufacturers.

The dates of starting the silk industry in the Nineteenth century in some of the more important places in various states, and the classes of goods, are shown in the following statement. It should be understood that in order to avoid duplication of towns in this statement only the first date at which any branch of the industry was inaugurated is given. Thus, in Philadelphia, when W. H. Horstman commenced the manufacture of dress trimmings, 1815 is mentioned, whereas the commencement there of the manufacture of sewing silk in 1843 and of ribbons in 1852 are omitted.

YEAR.	Place.	Class of goods.
	PENNSYLVANIA.	
1815	Philadelphia	Dress trimmings.
1879	Scranton	Tram and organzine.
1880	Hawley	Tram, organzine, and broad silks.
1881	Allentown	Broad silks.
1881	Darby	Spun-silk yarns.
1883	Easton	Tram and organzine.
1886	Bethlehem	Tram and organzine.
1886	Catasauqua	Spun silk, laces, and braids.
1886	Harrisburg	Tram, organzine, and broad silks.
1886	East Mauch Chunk	Tram, organzine, broad silks, and ribbons.
1886	South Bethlehem	Tram, organzine, and broad silks.
1886	Stroudsburg	Tram and organzine.
1886	Wilkesbarre	Surah and figured pongees.
1887	Honesdale	Tram, organzine, broad silks, and ribbons.
1887	Pittston.	
1887	Pottsville	Tram and organzine.
1887	Reading	Tram, organzine, and broad silks.
1888	Altoona	Tram and organzine.
1888	Bloomsburg	Tram, organzine, and broad silks.
1888	Weatherly	Tram and organzine.
1891	Carlisle	Tram and organzine.
1891	Eden	Silk and cotton curtains.

YEAR.	Place.	Class of goods.
	PENNSYLVANIA—continued.	
1892	Columbia	Tram, organzine, and broad silks.
1892	Hanover	Silk ribbons.
1893	Emans	Broad silks.
1893	Williamsport	Broad silks.
1894	Hallstead	Ribbons and narrow fabrics.
1895	Carbondale	Tram and organzine.
1895	Taylor	Tram and organzine.
1896	Avoca	Tram and organzine.
1896	Marietta	Dress silks.
1896	Sunbury	Broad silks.
1897	Alburtis	Brocades.
1897	Bath	Dress and tie silks.
1897	Danville	Tram and organzine.
1897	Ephrata	Broad silks.
1897	Fleetwood	Broad silks.
1897	Freeland	Tram and organzine.
1897	Plymouth	Tram and organzine.
1897	Pottstown	Sewing silk.
1897	Titusville	Ribbons.
1898	Athens	Broad and tie silks.
1898	Coatesville	Tram, organzine, and broad silks.
1898	Dunmore	Plain and dress silks.
1898	Hazelton	Umbrella silks.
1898	Jermyn	Tram and organzine.
1898	Lancaster	Broad silks.
1898	Newberry	Dress goods.
1898	New Holland	Broad and tie silks.
1898	New Hope	Broad silks.
1898	Parsons	Tram and organzine.
1898	Phoenixville	Tram, organzine, and ribbons.
1898	West Pittston	Tram and organzine.
1898	York	Tram, organzine, and ribbons.
1899	Aquashicola	Ribbons.
1899	Dickson City	Tram, organzine, bandkerchiefs, and mufflers.
1899	Forest City	Organzine.
1899	Kutztown	Tram and organzine.
1899	Lansdale	Dress and umbrella silks.
1899	Lehighton	Ribbons.
1899	Lock Haven	Broad silks.
1899	Reynoldsville	Broad silks.
1899	Richland Center	Broad silks.
1899	Shamokin	Pongees and surahs.
1899	Topton	Dress and tie silks.
1900	Bradford	Tram and organzine.
1900	Butler	Dress silks.
1900	Meadville	Broad silks.
1900	Pennsburg	Ribbons.
1900	Renovo	Broad silks.
1900	Weissport	Tram and organzine.
1900	White Haven	Tram and organzine.
	MARYLAND.	
1829	Baltimore	Ribbons.
1889	Hagerstown	Ribbons.
1898	Ilchester	Pongees.
	MASSACHUSETTS.	
1832	Northampton	Sewing silk.
1834	Boston	Dress trimmings.
1834–38	Florence	Sewing silk.
1835	Dedham	Sewing silk.
1840	Canton	Sewing silk.
1848	Skinnerville	Sewing silk.
1874	Holyoke	Sewing silk, braids, and linings.
1878	Pittsfield	Sewing silk.
1880	Springfield	Silk and mohair braids.
1882	Atbol	Sewing silk.
1884	Worcester	Silk bindings and picot ribbons.
1886	Newton Upper Falls	Spun-silk yarns.
1890	Sandwich	Silk and mohair braids.
	CONNECTICUT.	
1810	Mansfield	Sewing silk.
1814	Gurleyville	Sewing silk.
1835	Hartford	Silk and tuscan braid.
1838	South Manchester	General silk manufacture.
1838	Windsor Locks	Sewing silk.
1844	South Coventry	Sewing silk.
1849	Watertown	Sewing silk.
1863	Rockville	Sewing silk.
1866	Willimantic	Sewing silk.
1872	Middletown	Machine twist and sewing silk.
1873	West Winsted	Sewing silk.
1874	Norfolk	Sewing silk.
1874	Warehouse Point	Sewing silk.
1878	Putnam	Machine twist.
1879	New London	Sewing silk.
1882	Bridgeport	Dress silks.
1882	Preston	Tram and organzine.
1891	Norwich	Ribbons and hatbands.
1892	Stonington	Silk velvets.
1898	Mystic	Silk velvets.
1898	Shelton	Silk velvets and ribbons.
	NEW JERSEY.	
1840	Paterson	General silk manufacture.
1842	Newark	Sewing silk.
1865	Trenton	Coach lace.
1868	Hoboken	Silk dress goods.
1868	Homestead	Broad silks.
1870	West Hoboken	Broad silks.
1874	Wortendyke	Silk handkerchiefs and dress goods.
1875	Union	Silk dress goods.
1880	Boonton	Tram, organzine, and broad silks.

YEAR.	Place.	Class of goods.
	NEW JERSEY—continued.	
1880	Hackensack	Broad silks.
1881	Dover	Tram and organzine.
1886	Phillipsburg	Broad and dress silks.
1887	Hackettstown	Tram and organzine.
1888	Stirling	Broad silks.
1888	Midland Park	Tie and dress silks.
1888	Port Oram.	
1889	Lakeview	Silk linings and dress silks.
1889	Pompton Lakes.	
1890	Guttenberg	Umbrella silks, veils and veiling, and black taffetas.
1891	Lodi	Dyeing and finishing silk piece goods.
1891	Washington	Taffetas, furriers' satin, and brocades.
1893	Summit	Broad silks.
1894	Jersey City	Dress silks.
1895	Belvidere	Tram and organzine.
1895	Watsessing	Dress silks and linings.
1896	Newton	Broad silks.
1898	Passaic	Silk veilings.
1899	Plainfield	Dress silks.
1900	Hillsdale	Broad silks.
	ILLINOIS.	
1864	Chicago	Dress trimmings.
1899	Alpine	Silk curtains.
	NEW YORK.	
1830	New York	Dress trimmings.
1841	Auburn	Sewing silk.
1866	Oneida	Sewing silk.
1871	Brooklyn	Silk laces.
1872	College Point	Ribbons.
1882	Sloatsburg	Spun silk.
1885	Hornellsville	Tram and organzine.
1886	Fultonville	Silk gloves and mittens.
1887	Norwich	Ribbons.
1887	Whitehall.	
1888	Long Island City	Silk plushes.
1889	Matteawan	Tram and organzine.
1889	Spring Valley	Tram, organzine, and sewing silk.
1891	Clark Mills	Seal plushes.
1892	Elmira	Tram and organzine.
1892	Delhi	Broad silks.
1892	West New Brighton	Labels, etc.
1892	Unionville	Ribbons.
1892	Fort Plain	Tram and organzine.
1893	Newburg	Pongees, surah, taffetas, linings, and broad silks.
1896	Watertown	Dress silks.
1897	Port Jervis	Tram and organzine.
1897	Yonkers	Ribbons.
1899	Fort Hunter	Novelties and linings.
1899	Glendale	Ribbons.
1899	Haverstraw	Dress silks.
1899	Oneonta	Broad silks.
	CALIFORNIA.	
1870	San Francisco	Sewing silk and fringe silk.
	MAINE.	
1874	Westbrook	Spool silks.
	UTAH	
1884	Salt Lake City	Handkerchiefs and dress goods.
	OHIO.	
1886	Piqua	Silk hosiery.
1893	Toledo	Knit goods.
	MICHIGAN.	
1887	Belding	Sewing silk.
1899	Detroit	Mittens, gloves, and hosiery.
	WISCONSIN.	
1887	Janesville	Silk underwear.
1899	Milwaukee	Knit goods.
	VIRGINIA.	
1888	Petersburg	Spinning and dyeing.
1889	Fredericksburg	Tram and organzine.
1900	Norfolk	Broad and tie silks.
	NORTH CAROLINA.	
1888	Wadesboro	Tram and organzine.
1899	Fayetteville	Dress and tie silks.
1900	Roanoke Rapids	Wide pongees.
	RHODE ISLAND.	
1889	Pawtucket	Silk-mixed linings.
1897	Newport	Elastic webbing.
1899	Wyoming	Lining silks.
1900	Bristol	Curtains and portières
	NEW HAMPSHIRE.	
1891	Contoocook	Tram and organzine.
1898	Newmarket	Silk and cotton mulls and pongees.
1898	Lebanon	Underwear.
1900	Lisbon	Cotton and silk covered wire.
	DELAWARE.	
1899	Dover	Dress silks.
1899	Wilmington	Black and colored taffetas.

TABLE 23.—SILK AND SILK GOODS, INCLUDING

		United States.	California.	Connecticut.	Illinois.
1	Number of establishments	483	5	38	4
	Character of organization:				
2	Individual	132	3	14	1
3	Firm and limited partnership	154	1	4	.....
4	Incorporated company	197	1	20	3
	Capital:				
5	Total	$81,082,201	$308,847	$12,166,775	$259,540
6	Land	$2,045,093	$3,600	$282,294	$15,000
7	Buildings	$10,205,812	$29,726	$1,597,352	$25,000
8	Machinery, tools, and implements	$20,750,449	$44,161	$2,061,799	$95,959
9	Cash and sundries	$48,080,847	$231,360	$8,225,330	$123,581
10	Proprietors and firm members	477	6	23	1
	Salaried officials, clerks, etc.:				
11	Total number	2,657	6	323	33
12	Total salaries	$3,134,352	$4,998	$403,423	$51,180
	Officers of corporations—				
13	Number	304	.....	29	5
14	Salaries	$769,771	.....	$103,090	$13,000
	General superintendents, managers, clerks, etc.—				
15	Total number	2,353	6	294	28
16	Total salaries	$2,364,581	$4,998	$300,333	$38,180
	Men—				
17	Number	2,078	5	257	24
18	Salaries	$2,240,552	$4,530	$284,352	$35,200
	Women—				
19	Number	275	1	37	4
20	Salaries	$124,029	$468	$15,981	$2,980
	Wage-earners, including pieceworkers, and total wages:				
21	Greatest number employed at any one time during the year	75,110	142	7,400	507
22	Least number employed at any one time during the year	56,959	82	5,883	315
23	Average number	65,416	117	6,514	412
24	Wages	$20,982,194	$33,055	$2,392,873	$121,644
	Men, 16 years and over—				
25	Average number	24,206	24	2,763	81
26	Wages	$10,699,483	$14,436	$1,350,543	$43,475
	Women, 16 years and over—				
27	Average number	34,797	91	3,585	310
28	Wages	$9,377,696	$18,119	$1,013,498	$73,919
	Children, under 16 years—				
29	Average number	6,413	2	166	21
30	Wages	$905,015	$500	$28,832	$4,250
	Average number of wage-earners, including pieceworkers, employed during each month:				
	Men, 16 years and over—				
31	January	24,197	25	2,677	82
32	February	24,729	26	2,710	82
33	March	25,024	26	2,708	88
34	April	25,200	23	2,785	86
35	May	24,752	23	2,745	86
36	June	23,855	22	2,618	66
37	July	23,792	18	2,711	65
38	August	23,829	22	2,730	75
39	September	23,797	24	2,855	81
40	October	23,749	26	2,947	88
41	November	23,801	27	2,967	86
42	December	23,747	27	2,701	81
	Women, 16 years and over—				
43	January	34,742	98	3,501	319
44	February	35,340	95	3,581	367
45	March	36,221	91	3,659	363
46	April	36,038	86	3,719	356
47	May	35,352	86	3,658	293
48	June	34,402	82	3,534	265
49	July	33,822	64	3,542	238
50	August	34,137	88	3,515	253
51	September	34,045	91	3,497	288
52	October	34,309	99	3,589	340
53	November	34,517	106	3,662	335
54	December	34,639	105	3,566	306
	Children, under 16 years—				
55	January	6,260	2	149	21
56	February	6,267	2	155	23
57	March	6,410	2	164	23
58	April	6,564	1	169	27
59	May	6,537	1	164	25
60	June	6,502	1	164	19
61	July	6,417	1	163	15
62	August	6,381	1	164	14
63	September	6,386	1	170	19
64	October	6,349	2	170	22
65	November	6,429	2	187	23
66	December	6,454	2	177	21
	Weavers:				
	Broad silk—				
67	Men	8,917	.....	448	.....
68	Women	9,188	.....	441	.....
69	Children	235	.....	.....	.....
	Ribbons—				
70	Men	3,725	.....	21	.....
71	Women	1,467	.....	200	.....
72	Children	21	.....	7	.....
	Velvets and plushes—				
73	Men	881	.....	565	.....
74	Women	510	.....	141	.....
75	Children	150	.....	.....	.....
	Other—				
76	Men	1,837	.....	412	.....
77	Women	1,892	.....	367	.....
78	Children	261	.....	32	.....

BRAIDS AND TRIMMINGS, BY STATES: 1900.

Massachusetts.	New Jersey.	New York.	North Carolina.	Pennsylvania.	Rhode Island.	Virginia.	All other states.[1]	
20	180	92	3	121	6	3	11	1
6	51	32	1	19	3	1	1	2
3	63	34	.....	47	.....	1	1	3
11	66	26	2	55	3	1	9	4
$5,649,758	$29,285,792	$9,800,207	$130,376	$20,891,023	$680,252	$594,359	$1,312,272	5
$216,341	$733,367	$202,138	$6,200	$491,598	$24,955	$12,600	$57,000	6
$756,454	$2,966,084	$580,224	$52,000	$3,688,545	$96,224	$174,440	$233,763	7
$707,345	$7,297,856	$3,061,252	$40,525	$6,696,158	$165,032	$210,200	$370,162	8
$3,969,618	$18,288,485	$5,950,593	$31,651	$10,017,722	$394,041	$197,119	$651,347	9
11	197	94	1	131	3	2	8	10
156	959	363	11	745	8	12	41	11
$227,276	$1,144,512	$511,439	$3,455	$718,776	$12,320	$12,678	$41,295	12
20	98	41	6	88	3	1	13	13
$51,850	$269,368	$163,891	$875	$144,462	$9,200	$1,000	$13,035	14
136	861	322	5	657	5	11	28	15
$175,426	$875,141	$350,548	$2,580	$574,314	$3,120	$11,678	$28,260	16
115	787	298	5	549	4	10	24	17
$166,772	$840,337	$338,784	$2,580	$528,243	$2,320	$11,314	$26,120	18
21	74	24	.....	108	1	1	4	19
$8,654	$34,807	$11,764	.....	$46,071	$800	$364	$2,140	20
3,465	27,162	9,330	265	24,424	563	518	1,334	21
2,953	20,784	6,563	255	18,496	365	429	834	22
3,110	24,157	7,861	209	21,028	455	473	1,080	23
$1,110,324	$9,232,582	$2,861,818	$25,420	$4,629,626	$166,675	$195,056	$303,171	24
1,102	11,279	3,149	35	5,214	124	144	291	25
$506,282	$5,296,102	$1,509,660	$8,827	$1,718,587	$82,240	$61,294	$108,037	26
1,837	11,679	4,299	119	11,565	326	228	758	27
$562,989	$3,731,827	$1,293,875	$13,331	$2,363,123	$83,664	$31,885	$191,466	28
171	1,199	413	55	4,249	5	101	31	29
$41,053	$204,603	$58,283	$3,262	$547,916	$771	$11,877	$3,668	30
1,067	11,247	3,266	38	5,262	109	137	287	31
1,094	11,540	3,361	38	5,326	118	147	287	32
1,099	11,676	3,429	38	5,402	114	150	294	33
1,100	11,699	3,366	48	5,534	108	149	302	34
1,089	11,605	3,165	48	5,455	123	145	268	35
1,057	11,324	2,865	38	5,322	121	148	271	36
1,078	11,395	2,889	20	5,077	128	147	264	37
1,095	11,237	3,032	20	5,064	125	143	286	38
1,116	10,984	3,095	20	5,043	131	145	303	39
1,144	10,786	3,136	38	5,005	138	132	309	40
1,153	10,791	3,101	38	5,054	137	145	302	41
1,131	11,070	3,077	38	5,027	138	134	323	42
1,776	11,696	4,492	138	11,617	224	221	660	43
1,855	11,861	4,501	138	11,788	231	221	702	44
1,951	12,055	4,698	138	12,019	256	222	769	45
1,934	12,012	4,515	158	11,989	276	221	772	46
1,870	11,946	4,149	158	11,873	330	212	777	47
1,732	11,701	3,920	138	11,747	350	249	684	48
1,697	11,683	3,944	50	11,264	354	241	745	49
1,732	11,564	4,132	50	11,455	346	239	763	50
1,835	11,378	4,266	50	11,248	369	240	783	51
1,921	11,261	4,376	138	11,145	384	229	827	52
1,841	11,427	4,324	138	11,270	391	222	801	53
1,901	11,561	4,266	138	11,364	400	218	814	54
113	1,164	408	54	4,184	3	101	31	55
157	1,157	406	54	4,163	3	104	43	56
158	1,175	428	54	4,248	3	108	47	57
170	1,230	445	59	4,316	4	103	40	58
168	1,221	430	59	4,326	4	112	27	59
165	1,203	408	54	4,363	4	93	28	60
170	1,212	411	54	4,256	10	102	23	61
167	1,219	398	54	4,238	9	95	22	62
176	1,216	397	54	4,219	8	101	25	63
193	1,190	390	54	4,202	3	96	27	64
195	1,201	420	54	4,212	3	103	29	65
190	1,202	421	54	4,256	3	100	28	66
301	5,491	899	.....	1,645	74	.....	59	67
208	3,548	824	38	3,777	156	12	184	68
.....	38	2	.....	191	.....	.....	4	69
.....	1,762	1,014	.....	885	.....	.....	43	70
40	502	203	.....	517	.....	.....	5	71
.....	3	10	.....	1	.....	.....	.....	72
.....	48	109	.....	149	10	.....	.....	73
.....	5	20	.....	344	.....	.....	.....	74
.....	.....	.....	.....	150	.....	.....	.....	75
10	691	351	.....	341	20	.....	12	76
34	763	450	.....	278	.....	.....	.....	77
8	75	86	.....	59	.....	.....	1	78

[1] Includes establishments distributed as follows: Delaware, 2; Maine, 1; Maryland, 2; Michigan, 2; New Hampshire, 2; Utah, 2.

TABLE 23.—SILK AND SILK GOODS, INCLUDING

		United States.	California.	Connecticut.	Illinois.
	Spinners, etc.:				
79	Men	7,332	11	1,268	.....
80	Women	19,513	60	1,990	.....
81	Children	4,955	.....	227	.....
	Miscellaneous expenses:				
82	Total	$10,264,208	$4,113	$637,450	$42,410
83	Rent of works	$591,807	$2,220	$30,202	$7,950
84	Taxes, not including internal revenue	$238,116	$680	$36,506	$1,974
85	Rent of offices, insurance, interest, and all sundry expenses not hitherto included.	$2,863,986	$1,213	$353,489	$19,720
86	Contract work	$6,570,299	.....	$217,253	$12,766
	Materials used:				
87	Total cost	$62,406,665	$146,219	$7,198,008	$187,514
	Silk—				
88	Raw, pounds	9,760,770	30,425	1,159,961	.....
89	Cost	$40,721,877	$113,885	$1,537,720	.....
90	Spun, pounds	1,550,291	725	502,558	4,225
91	Cost	$3,406,059	$2,380	$998,566	$12,724
92	Artificial, pounds	6,056	.....	.....	10
93	Cost	$10,380	.....	.....	$55
94	Waste, pounds	1,667,195	.....	749,036	.....
95	Cost	$734,539	.....	$404,183	.....
	Other textile yarns—				
96	Cotton, pounds	6,444,208	8,500	1,187,863	255,247
97	Cost	$1,830,550	$2,675	$388,836	$36,950
98	Mercerized cotton, pounds	219,861	650	1,642	7,178
99	Cost	$165,683	$655	$1,416	$3,113
100	Wool, pounds	239,461	150	401	65,190
101	Cost	$167,770	$150	$329	$35,702
102	Mohair, pounds	104,810	380	1,236	6,992
103	Cost	$107,365	$545	$1,543	$10,024
104	Other, pounds	108,388	.....	2,024	7,250
105	Cost	$134,986	.....	$4,596	$10,000
	Silk purchased in partially manufactured form—				
106	Organzine and tram, pounds	2,338,464	980	31,041	4,713
107	Cost	$10,539,632	$7,320	$154,881	$21,149
108	Fringe and floss, pounds	67,984	250	743	8,905
109	Cost	$274,408	$1,100	$4,161	$29,893
110	Fuel	$548,493	$1,382	$90,937	$2,500
111	Rent of power and heat	$135,509	$600	$5,980	$530
112	Mill supplies	$994,769	$8,684	$155,982	$1,624
113	All other materials	$2,406,123	$3,371	$427,544	$23,250
114	Freight	$228,522	$3,472	$21,334	.....
	Raw silk thrown under contract:				
115	Organzine, pounds	2,331,456	.....	184,270	.....
116	Tram, pounds	1,967,203	.....	69,588	.....
	Products:				
117	Total value	$107,256,258	$255,902	$12,378,981	$421,088
118	Organzine and tram made for sale, pounds	2,468,387	2,000	92,000	.....
119	Value	$11,167,191	$8,000	$502,520	.....
120	Spun silk yarn made for sale, pounds	437,459	.....	166,265	.....
121	Value	$1,026,227	.....	$398,671	.....
122	Machine twist, pounds	987,917	22,742	545,423	.....
123	Value	$5,997,974	$163,742	$3,354,546	.....
124	Sewing, embroidery, and wash silks, pounds	477,658	5,200	145,032	.....
125	Value	$3,276,826	$47,400	$977,213	.....
126	Fringe and floss silks, pounds	261,643	.....	95,806	.....
127	Value	$971,390	.....	$217,043	.....
	Broad silk goods—				
	Plain and fancies—				
128	All silk, yards	53,573,488	800	1,435,439	.....
129	Value	$33,852,111	$800	$1,075,166	.....
130	Silk mixed, yards	8,963,315	.....	415,648	.....
131	Value	$5,450,710	.....	$269,937	.....
	Jacquard—				
132	All silk, yards	7,532,229	800	7,563	.....
133	Value	$5,379,001	$800	$3,905	.....
134	Silk mixed, yards	1,677,466	.....	93,264	.....
135	Value	$1,260,321	.....	$63,117	.....
	Piece-dyed—				
136	All silk, yards	7,331,501	.....	3,371,127	.....
137	Value	$3,342,167	.....	$1,534,724	.....
138	Silk mixed, yards	8,558,884	.....	147,833	.....
139	Value	$2,868,506	.....	$98,720	.....
	Other broad goods—				
140	Velvets, yards	5,122,249	.....	4,261,208	.....
141	Value	$2,479,903	.....	$2,087,639	.....
142	Plushes, yards	3,848,684	.....	1,011,457	.....
143	Value	$2,480,068	.....	$687,679	.....
144	Tapestries, yards	321,978	.....	69,978	.....
145	Value	$180,503	.....	$84,503	.....
146	Upholstery, yards	1,011,141	.....	.....	.....
147	Value	$829,332	.....	.....	.....
	Ribbons and laces—				
148	Ribbons, value	$18,467,179	.....	$655,807	.....
149	Laces, nets, veils, veiling, etc., value	$803,104	.....	.....	.....
150	Embroideries, value	$57,625	$1,000	.....	.....
151	Fringes and gimps, value	$444,787	$4,000	.....	$46,477
152	Braids and bindings, value	$1,522,565	$6,500	$38,685	$249,002
	Trimmings—				
153	Tailors', value	$26,624	.....	.....	$6,000
154	Ladies', value	$912,361	$6,000	.....	$43,461
155	Cloak, value	$241,560	$3,200	.....	$31,000
156	Milliners', value	$615,012	$5,000	.....	$35,000
157	Military, value	$54,666	$3,100	.....	$6,346
158	Other trimmings products, value	$183,853	$6,000	.....	$3,802
159	Other products, value	$1,027,472	$160	$192,744	.....
160	Received for contract work	$2,337,220	$200	$136,362	.....

BRAIDS AND TRIMMINGS, BY STATES: 1900—Continued.

Massachusetts.	New Jersey.	New York.	North Carolina.	Pennsylvania.	Rhode Island.	Virginia.	All other states.[1]	
449	3,180	501	34	1,587	20	131	151	79
1,186	6,722	2,070	73	6,481	151	216	564	80
158	813	206	54	3,370	2	101	24	81
$382,745	$4,896,595	$1,601,527	$5,159	$2,451,820	$103,454	$15,300	$123,635	82
$13,837	$241,838	$182,323	$2,000	$96,547	$13,925	.....	$965	83
$29,583	$97,665	$27,587	$86	$36,330	$3,013	$1,168	$3,524	84
$179,306	$1,120,458	$512,228	$1,873	$610,872	$7,916	$12,697	$44,214	85
$160,019	$3,436,634	$879,389	$1,200	$1,708,071	$78,600	$1,435	$74,932	86
$3,823,963	$21,631,118	$6,570,037	$99,403	$19,884,869	$818,561	$720,525	$1,326,448	87
720,485	3,155,334	914,265	20,200	3,238,285	102,691	164,200	254,924	88
$2,898,545	$13,514,501	$3,814,768	$90,282	$13,534,387	$490,750	$653,045	$1,073,994	89
40,136	178,735	263,200	1,100	477,543	51,516	.....	30,553	90
$96,583	$533,612	$562,322	$3,080	$979,506	$136,404	.....	$80,882	91
170	.....	5,350	.....	526	.....	.....	.....	92
$420	.....	$6,790	.....	$3,115	.....	.....	.....	93
418,355	.....	287,880	.....	186,424	25,000	.....	500	94
$177,480	.....	$86,900	.....	$62,476	$3,000	.....	$500	95
480,220	757,486	1,556,545	.....	1,759,759	409,936	.....	28,652	96
$144,520	$304,481	$359,716	.....	$465,812	$122,800	.....	$4,760	97
4,708	122,053	61,560	.....	30,070	2,000	.....	.....	98
$3,733	$90,013	$42,432	.....	$23,121	$1,200	.....	.....	99
96,867	16,940	45,527	.....	8,717	2,667	.....	3,002	100
$69,660	$15,042	$36,640	.....	$5,743	$2,000	.....	$2,504	101
17,405	.....	29,697	.....	47,600	.....	.....	1,500	102
$27,832	.....	$28,776	.....	$35,645	.....	.....	$3,000	103
1,971	480	24,167	.....	31,323	.....	.....	41,173	104
$12,991	$170	$14,364	.....	$24,097	.....	.....	$68,768	105
17,681	1,209,012	197,781	.....	871,235	5,711	.....	310	106
$81,010	$5,702,506	$839,657	.....	$3,701,840	$29,730	.....	$1,539	107
675	478	20,606	.....	34,727	1,600	.....	.....	108
$3,287	$1,816	$88,813	.....	$137,338	$8,000	.....	.....	109
$35,205	$179,280	$55,635	$2,382	$158,409	$4,676	$5,417	$12,670	110
$3,467	$63,932	$40,651	.....	$15,979	$1,500	$1,260	$1,610	111
$78,435	$257,824	$158,119	$766	$277,698	$1,787	$37,311	$16,539	112
$179,347	$909,191	$412,922	$983	$364,891	$14,137	$17,000	$53,487	113
$11,448	$58,750	$21,532	$1,910	$94,812	$2,577	$6,492	$6,195	114
.....	585,722	117,981	.....	1,332,758	16,599	67,220	26,906	115
8,000	651,900	204,400	73,000	926,915	.....	27,710	5,690	116
$5,957,532	$39,966,662	$12,706,246	$135,354	$31,072,926	$1,311,333	$981,680	$2,068,554	117
1,855	315,646	48,263	7,800	1,723,791	.....	277,032	.....	118
$7,765	$1,500,060	$207,500	$38,062	$8,011,155	.....	$892,129	.....	119
104,000	.....	92,046	.....	75,148	.....	.....	.....	120
$270,400	.....	$216,503	.....	$140,653	.....	.....	.....	121
269,241	.....	46,500	.....	43,476	.....	.....	60,535	122
$1,413,004	.....	$240,405	.....	$285,288	.....	.....	$540,989	123
170,423	.....	18,528	.....	74,475	.....	.....	64,000	124
$1,246,445	.....	$113,468	.....	$451,800	.....	.....	$440,500	125
20,964	16,611	.....	.....	128,262	.....	.....	.....	126
$147,773	$64,444	.....	.....	$542,130	.....	.....	.....	127
665,153	28,268,970	3,859,029	105,000	17,887,478	.....	.....	1,351,619	128
$766,054	$18,871,325	$2,516,445	$31,000	$10,002,648	.....	.....	$588,673	129
2,020,101	2,331,493	1,047,130	.....	669,377	2,367,437	.....	112,129	130
$1,437,799	$1,680,091	$558,361	.....	$310,200	$1,119,159	.....	$75,163	131
.....	6,451,655	108,410	.....	903,001	.....	.....	60,800	132
.....	$4,722,532	$115,250	.....	$505,714	.....	.....	$30,800	133
.....	1,466,355	61,426	.....	56,421	.....	.....	.....	134
.....	$1,154,365	$19,008	.....	$23,831	.....	.....	.....	135
.....	1,694,675	22,000	.....	1,775,255	.....	59,760	408,684	136
.....	$905,942	$84,561	.....	$586,443	.....	$40,904	$189,593	137
20,384	381,000	2,447,570	.....	5,562,097	.....	.....	.....	138
$12,434	$154,500	$1,039,489	.....	$1,563,363	.....	.....	.....	139
.....	111,077	9,515	.....	740,449	.....	.....	.....	140
.....	$62,935	$4,757	.....	$324,572	.....	.....	.....	141
.....	555,842	528,795	.....	1,752,590	.....	.....	.....	142
.....	$315,540	$362,191	.....	$1,114,658	.....	.....	.....	143
.....	2,000	.....	.....	250,000	.....	.....	.....	144
.....	$9,000	.....	.....	$87,000	.....	.....	.....	145
.....	231,037	623,843	.....	156,261	.....	.....	.....	146
.....	$396,850	$222,105	.....	$210,377	.....	.....	.....	147
$92,000	$8,341,721	$4,883,011	.....	$4,368,399	.....	.....	$126,241	148
.....	$423,257	$377,047	.....	$2,800	.....	.....	.....	149
$33,533	.....	$23,092	.....	.....	.....	.....	.....	150
$28,087	.....	$195,528	.....	$170,695	.....	.....	.....	151
$388,339	$162,595	$388,391	.....	$119,573	$169,480	.....	.....	152
$8,124	.....	.....	.....	.....	.....	.....	$12,500	153
$68,385	.....	$389,510	.....	$397,505	.....	.....	$7,500	154
$839	.....	$21,000	.....	$181,521	.....	.....	$4,000	155
.....	.....	$231,000	.....	$344,012	.....	.....	.....	156
$220	.....	$30,000	.....	$15,000	.....	.....	.....	157
$6,000	$160	$95,784	.....	$72,107	.....	.....	.....	158
$21,053	$434,501	$133,622	$39,893	$171,349	$8,400	.....	$25,750	159
$9,278	$766,844	$238,218	$26,399	$1,070,133	$14,294	$48,647	$26,845	160

[1] Includes establishments distributed as follows: Delaware, 2; Maine, 1; Maryland, 2; Michigan, 2; New Hampshire, 2; Utah, 2.

TABLE 23.—SILK AND SILK GOODS, INCLUDING

		United States.	California.	Connecticut.	Illinois.
	Machinery:				
161	Spindles, total number	1,987,404	3,380	160,743	
	Organzine—				
162	First time over, number	582,180		15,686	
163	Second time over, number	345,145		8,720	
164	Tram, number	117,979	88	5,256	
165	Cleaning or polishing, number	6,526	44	2,102	
166	Doubling, number	185,075	456	14,048	
167	Quilling, number	87,742	50	7,361	
168	Reeling, number	52,158	84	4,340	
169	Spinning and twisting, number	168,189	1,650	66,753	
170	Winding, number	442,410	1,008	36,477	
	Looms—				
	Power—				
171	Total number	44,257	2	2,975	27
	Plain—				
172	36 inches or over reed space, number	13,077		1,660	
173	Under 36 inches reed space, number	16,161		777	27
174	German (warps on top) ribbons, number	4,471		95	
175	High-speed ribbons, number	2,105		194	
	Jacquards—				
176	Ribbons, number	856		5	
177	Broad silks, number	7,587	2	244	
	Hand—				
178	Total number	173			7
	Plain—				
179	36 inches or over reed space, number	32			
180	Under 36 inches reed space, number	127			7
	Jacquards—				
181	Ribbons, number	9			
182	Broad silks, number	5			
	Other machines—				
	Power—				
	Knitting—				
183	Warp, number	108			8
184	Knitting or crochet, number	127	1		7
185	Roundhead, number	21			
186	Swiss-ribbed, number	14			
187	Milanese or traverse, number	5			
188	Beamers, number	343		54	
189	Braiders, number	15,305	21	1,005	3,809
190	Chenille, number	130	3	1	9
191	Curtain, number	1			
	Embroidery—				
192	Shiffle or power, number	104			
193	Hand-stitched, number	29			
194	Gimp mills, number	122		1	7
195	Levers or lace, number	64			
196	Sewing, number	550	2	15	10
197	Slide cord, number	152	3		18
198	Spooling tables, number	743	13	288	16
199	Twist, number	64	5		2
200	Warping, number	3,589	2	187	
201	Other power machines, number	99		1	
	Hand—				
202	Beamers, number	6	1		
203	Braiders, number	19			
204	Chenille, number	30	12		
	Embroidery—				
205	Hand-stitched, number	2			
206	Levers or lace, number	1			
207	Sewing, number	79	2	3	6
208	Slide cord, number	8	8		
209	Spooling tables, number	144		81	
210	Twist, number	16			8
211	Warping, number	796	2	7	5
212	Other hand machines, number	61		15	
	Dyeing, finishing, and printing:				
	Skein dyeing—				
	Silk—				
213	Colors, pounds	1,793,955	750	511,298	
214	Black, pounds	1,541,785	26,972	445,999	
	Spun—				
215	Colors, pounds	425,216		203,181	
216	Black, pounds	176,014		62,957	
	Cotton—				
217	Colors, pounds	925,255		113,830	
218	Black, pounds	981,559		450,669	
	Wool—				
219	Colors, pounds	52,658			
220	Black, pounds	55,949			
	Piece dyeing—				
221	All silk, yards	1,224,329		177,391	
222	Silk and spun, yards	459,693		349,693	
223	Silk and cotton, yards	2,780,156		1,077,664	
224	Silk and wool, yards	350			
	Finishing—				
225	All silk, pieces	472,584	40	71,986	
226	Silk and cotton, pieces	289,362		168,776	
227	Silk and wool, pieces	116			
	Printing—				
228	Printed in warps, yards	16,355		8,855	
	Printed in pieces—				
229	All silk, yards	846,704		777,618	
230	Silk and spun, yards	1,684,524		1,684,524	
231	Silk and cotton, yards	537,228		537,228	

BRAIDS AND TRIMMINGS, BY STATES: 1900—Continued.

Massachusetts.	New Jersey.	New York.	North Carolina.	Pennsylvania.	Rhode Island.	Virginia.	All other states.[1]	
107,312	536,065	136,703	18,790	942,545	4,212	41,798	35,856	161
20,088	153,312	25,208	5,000	340,298	.....	16,696	5,892	162
9,632	92,190	14,352	2,000	205,781	.....	8,400	4,070	163
1,586	30,014	8,404	2,680	65,591	.....	3,276	1,084	164
467	1,023	1,389	.....	799	102	.....	600	165
11,040	50,587	12,977	2,900	85,535	560	4,498	2,474	166
1,910	35,961	9,232	2,000	30,458	60	.....	710	167
3,524	13,367	4,102	158	24,956	80	404	1,143	168
36,782	6,074	15,522	.....	27,181	1,890	1,556	10,781	169
22,283	153,537	45,517	4,052	161,946	1,520	6,968	9,102	170
1,017	20,557	5,175	125	12,920	533	147	779	171
451	4,573	1,510	125	3,709	465	147	437	172
422	7,282	1,175	.....	6,166	68	.....	244	173
144	1,601	1,594	.....	986	.....	.....	51	174
.....	882	425	.....	604	.....	.....	.....	175
.....	433	223	.....	195	.....	.....	.....	176
.....	5,786	248	.....	1,260	.....	.....	47	177
23	15	93	.....	29	.....	.....	6	178
.....	7	4	.....	18	.....	.....	3	179
23	8	81	.....	8	.....	.....	.....	180
.....	.....	6	.....	3	.....	.....	.....	181
.....	.....	2	.....	.....	.....	.....	3	182
.....	.....	54	.....	46	.....	.....	.....	183
17	.....	39	.....	63	.....	.....	.....	184
.....	.....	9	.....	12	.....	.....	.....	185
14	.....	.....	.....	.....	.....	.....	.....	186
.....	.....	5	.....	.....	.....	.....	.....	187
6	97	52	1	128	.....	.....	5	188
2,876	744	3,889	.....	1,381	1,400	.....	180	189
4	1	50	.....	62	.....	.....	.....	190
.....	.....	.....	.....	1	.....	.....	.....	191
20	.....	84	.....	.....	.....	.....	.....	192
5	.....	24	.....	.....	.....	.....	.....	193
4	44	38	.....	28	.....	.....	.....	194
.....	14	50	.....	.....	.....	.....	.....	195
9	112	295	.....	103	.....	.....	4	196
81	.....	31	.....	19	.....	.....	.....	197
108	51	49	.....	132	4	.....	82	198
5	7	26	.....	7	.....	.....	12	199
97	1,700	410	8	1,102	37	9	37	200
.....	40	41	.....	17	.....	.....	.....	201
.....	1	1	.....	2	.....	.....	1	202
.....	2	17	.....	.....	.....	.....	.....	203
.....	.....	18	.....	.....	.....	.....	.....	204
.....	.....	.....	.....	2	.....	.....	.....	205
.....	.....	1	.....	.....	.....	.....	.....	206
.....	35	17	.....	15	.....	.....	1	207
.....	.....	.....	.....	.....	.....	.....	.....	208
.....	16	28	.....	19	.....	.....	.....	209
.....	2	5	.....	1	.....	.....	.....	210
6	304	263	.....	206	.....	.....	3	211
33	1	12	.....	.....	.....	.....	.....	212
263,700	838,582	98,910	.....	29,320	.....	.....	51,395	213
350,083	257,844	54,431	.....	68,023	.....	210,000	128,433	214
71,151	2,139	26,783	.....	110,100	9,912	.....	1,950	215
22,498	90	8,000	.....	78,515	3,304	.....	650	216
122,109	25,640	261,322	.....	400,354	.....	.....	2,000	217
224,642	83,050	25,475	.....	196,723	.....	.....	1,000	218
45,658	.....	5,000	.....	.....	.....	.....	2,000	219
50,949	.....	4,000	.....	.....	.....	.....	1,000	220
.....	1,046,938	.....	.....	.....	.....	.....	.....	221
.....	110,000	.....	.....	.....	.....	.....	.....	222
.....	471,893	538,310	.....	692,289	.....	.....	.....	223
.....	350	.....	.....	.....	.....	.....	.....	224
.....	268,128	67,240	.....	57,161	130	.....	7,899	225
.....	29,767	15,052	.....	65,046	10,721	.....	.....	226
.....	54	.....	.....	62	.....	.....	.....	227
.....	7,500	.....	.....	.....	.....	.....	.....	228
.....	69,086	.....	.....	.....	.....	.....	.....	229
.....	.....	.....	.....	.....	.....	.....	.....	230
.....	.....	.....	.....	.....	.....	.....	.....	231

[1] Includes establishments distributed as follows. Delaware, 2; Maine, 1; Maryland, 2; Michigan, 2; New Hampshire, 2; Utah, 2.

TABLE 23.—SILK AND SILK GOODS, INCLUDING

		United States.	California.	Connecticut.	Illinois.
	Comparison of products:				
232	Number of establishments reporting for both years	378	5	35	3
233	Value for census year	$101,474,146	$255,902	$12,209,415	$419,088
234	Value for preceding business year	$90,107,761	$237,451	$9,640,107	$364,896
	Power:				
235	Number of establishments reporting	475	5	38	4
236	Total horsepower	61,395	89	5,490	122
	Owned—				
	Engines—				
237	Steam, number	421	2	56	2
238	Horsepower	45,959	82	4,364	100
239	Gas or gasoline, number	19	.....	2	.....
240	Horsepower	323	.....	88	.....
241	Water wheels, number	117	.....	18	.....
242	Horsepower	6,666	.....	813	.....
243	Electric motors, number	135	.....	6	.....
244	Horsepower	3,998	.....	75	.....
245	Other power, horsepower	8	.....	.....	.....
	Rented—				
246	Electric, horsepower	609	7	85	.....
247	Other kind, horsepower	3,832	.....	65	22
248	Furnished to other establishments, horsepower	508	.....	7	.....
	Establishments classified by number of persons employed, not including proprietors and firm members:				
249	Total number of establishments	483	5	38	4
250	No employees	2	1	.....	.....
251	Under 5	20	.....	.....	1
252	5 to 20	66	2	6	.....
253	21 to 50	83	1	7	.....
254	51 to 100	95	1	5	.....
255	101 to 250	123	.....	14	3
256	251 to 500	60	.....	3	.....
257	501 to 1,000	28	.....	2	.....
258	Over 1,600	6	.....	1	.....

BRAIDS AND TRIMMINGS, BY STATES: 1900—Continued.

Massachusetts.	New Jersey.	New York.	North Carolina.	Pennsylvania.	Rhode Island.	Virginia.	All other states.[1]	
17	142	80	1	81	5	2	7	232
$5,874,830	$38,364,902	$12,264,525	$26,399	$28,129,885	$1,226,588	$940,776	$1,761,836	233
$4,605,428	$36,205,469	$11,543,103	$16,723	$24,872,339	$532,246	$855,306	$1,234,693	234
19	180	87	3	121	6	3	9	235
4,536	17,122	5,216	455	25,227	250	1,683	1,175	236
24	111	45	3	152	3	16	7	237
2,206	12,471	3,118	455	21,670	190	580	723	238
.....	4	7	.....	6	.....	.....	.....	239
.....	46	56	.....	133	.....	.....	.....	240
28	38	15	.....	5	1	5	7	241
2,039	1,245	852	.....	620	30	695	372	242
5	35	17	.....	54	.....	18	.....	243
205	1,158	135	.....	2,017	.....	408	.....	244
.....	.....	.....	.....	8	.....	.....	.....	245
.....	244	73	.....	180	.....	.....	20	246
86	1,958	1,012	.....	599	30	.....	60	247
1	210	80	.....	110	.....	.....	100	248
20	180	92	3	121	6	3	11	249
.....	1	.....	.....	.....	.....	.....	.....	250
3	7	6	.....	2	.....	.....	1	251
2	27	17	.....	9	1	1	1	252
5	35	15	1	16	2	.....	1	253
2	36	20	.....	26	2	.....	3	254
3	39	24	2	34	.....	1	3	255
2	19	10	.....	22	1	1	2	256
3	14	.....	.....	9	.....	.....	.....	257
.....	2	.....	.....	3	.....	.....	.....	258

[1] Includes establishments distributed as follows: Delaware, 2; Maine, 1; Maryland, 2; Michigan, 2; New Hampshire, 2; Utah, 2.

FLAX, HEMP, AND JUTE PRODUCTS.

FLAX, HEMP, AND JUTE PRODUCTS.

By Edward Stanwood, *Expert Special Agent.*

The industries which make use of the three classes of vegetable fibers, flax, hemp, and jute, are closely allied, in that most of them employ more than one of these materials. For example, there is a large consumption of hemp both by jute manufacturers and by those classed as makers of linen goods; and there is a consumption of all three fibers by cordage and twine establishments. If it were possible, it would be more scientific to classify the several industries by the character of the goods produced, but the variety and diversity of products are so great that it is impossible to do so. The plan here adopted is to group all the industries reported at the Eleventh Census under the separate heads of cordage and twine, jute and jute goods, linen goods, and linen thread, in one general survey, and to bring the facts relating to each branch into view by separate treatment.

Table 1 is a comparative summary of the statistics of the industry as a whole in 1890 and 1900.

Table 1.—FLAX, HEMP, AND JUTE PRODUCTS; COMPARATIVE SUMMARY, 1890 AND 1900.

	1900	1890
Number of establishments	141	162
Capital	$41,991,762	$27,731,649
Salaried officials, clerks, etc., number	641	[1]458
Salaries	$957,190	[1]$609,170
Wage-earners, average number	20,903	15,519
Total wages	$6,331,741	$4,872,389
Men, 16 years and over	9,996	7,367
Wages	$3,824,555	$2,952,270
Women, 16 years and over	8,648	6,923
Wages	$2,174,152	$1,733,289
Children, under 16 years	2,259	1,229
Wages	$333,034	$186,830
Miscellaneous expenses	$2,678,286	$1,431,932
Cost of materials used	$32,197,885	$26,148,344
Value of products	$47,601,607	$37,313,021

[1] Includes proprietors and firm members, with their salaries; number only reported in 1900, but not included in this table. (See Table 14.)

The only inference that may fairly be drawn from Table 1 is that, upon the whole, there has been an increase in these industries. It would be a statistical absurdity to place reliance upon the percentages of increase of masses, which include things widely different in their nature, and sums made up of great numbers and small.

Table 2 is a summary of the industry by states for 1900.

Table 2.—FLAX, HEMP, AND JUTE PRODUCTS; SUMMARY BY STATES: 1900.

	United States.	Alabama.	Connecticut.	Kentucky.	Massachusetts.	New Jersey.
Number of establishments	141	4	8	6	28	6
Capital	$41,991,762	$298,448	$297,962	$459,295	$10,223,490	$3,413,163
Salaried officials, clerks, etc., number	641	10	5	23	136	57
Salaries	$957,190	$10,980	$3,500	$26,024	$203,943	$80,551
Wage-earners, average number	20,903	282	265	492	4,693	2,127
Total wages	$6,331,741	$47,643	$69,544	$149,937	$1,562,862	$624,988
Miscellaneous expenses	$2,678,286	$14,654	$6,443	$39,847	$601,542	$223,118
Cost of materials used	$32,197,885	$166,145	$196,332	$341,515	$7,539,433	$1,760,426
Value of products	$47,601,607	$253,560	$312,446	$602,701	$11,388,933	$2,955,844

	New York.	Ohio.	Pennsylvania.	Rhode Island.	Wisconsin.	All other states.[1]
Number of establishments	22	9	21	5	5	27
Capital	$10,311,768	$2,147,677	$6,162,509	$95,947	$213,565	$8,367,938
Salaried officials, clerks, etc., number	148	47	90	4	11	110
Salaries	$306,331	$54,205	$103,788	$2,670	$8,840	$156,358
Wage-earners, average number	5,450	1,052	2,683	84	128	3,647
Total wages	$1,713,614	$317,909	$761,582	$22,175	$35,085	$1,026,402
Miscellaneous expenses	$782,719	$96,471	$147,126	$8,052	$7,574	$750,740
Cost of materials used	$7,516,240	$2,325,907	$5,448,323	$63,954	$109,016	$6,730,594
Value of products	$11,674,669	$2,957,674	$7,256,548	$108,715	$185,166	$9,905,351

[1] Includes states having less than 3 establishments, in order that the operations of individual establishments may not be disclosed. These establishments are distributed as follows: Arkansas, 1; California, 2; Delaware, 1; Georgia, 1; Illinois, 2; Indiana, 1; Iowa, 1; Kansas, 1; Maine, 2; Maryland, 1; Michigan, 1; Minnesota, 1; Mississippi, 1; Missouri, 2; New Hampshire, 1; North Carolina, 2; Oregon, 1; South Carolina, 1; Tennessee, 2; Texas, 2.

Tables 3 and 4 present, in accordance with trade classifications, the several fiber materials entering into the manufacture of flax, hemp, and jute goods, both the quantity and the cost, respectively; also the quantity and value of the goods produced therefrom.

TABLE 3.—FLAX, HEMP, AND JUTE PRODUCTS; KIND, QUANTITY, AND COST OF MATERIALS USED: 1900.

	Pounds.	Cost.
Total	545,449,566	$32,197,885
Fibers:		
Hard—		
Hemp—		
Manila	123,241,820	8,916,493
Sisal	146,352,853	8,827,131
New Zealand	6,344,371	352,528
Soft—		
Hemp—		
Russian—		
Rough	1,175,605	73,165
Tow	118,090	5,869
Line	349,558	25,063
Italian—		
Rough	7,329,346	533,922
Tow	305,917	20,969
Line	335,858	31,780
American—		
Rough	11,497,068	536,076
Tow	3,201,011	112,134
Line	1,276,262	65,675
Flax—		
European—		
Rough	5,580,911	668,446
Tow	3,727,163	252,759
Line	3,388,641	806,693
Canadian—		
Rough	1,972,820	155,751
Tow	247,350	18,908
Line	131,736	20,643
Domestic—		
Rough	700,000	25,750
Tow	744,045	66,665
Line	487,980	65,247
Jute	87,443,201	2,431,429
Jute butts	118,806,625	1,795,653
Yarns:		
Flax or hemp—		
Domestic tow—		
Wholly or partly bleached	120,320	14,060
Gray	48,500	6,860
Domestic line—		
Wholly or partly bleached	107,490	45,550
Gray	157,778	32,396
Imported tow—		
Wholly or partly bleached	37,514	9,681
Gray	196,941	35,178
Imported line—		
Wholly or partly bleached	1,000	180
Gray	108,976	48,747
Linen, unspecified	102,622	42,005
Cotton	4,973,080	709,889
Jute	1,009,651	69,504
Silk	4,774	24,414
Spun silk	1,100	3,450
Worsted	682	308
Cotton:		
Raw (26,540 bales)	13,022,755	849,426
Waste	798,182	37,692
All other materials		4,459,796

TABLE 4.—FLAX, HEMP, AND JUTE PRODUCTS; KIND, QUANTITY, AND VALUE OF PRODUCTS: 1900.

	Quantity.	Value.
Total		$47,601,607
Flax or hemp yarns:		
Tow—		
Dry spun, gray, pounds	1,889,528	248,351
Dry spun, bleached, pounds	18,371	3,473
Wet spun, gray, pounds	6,060,092	804,908
Wet spun, bleached, pounds	49,256	11,361
Line—		
Dry spun, gray, pounds	218,088	46,500
Dry spun, bleached, pounds	23,138	11,078
Wet spun, gray, pounds	1,200	300
Jute yarns, pounds	54,271,860	3,230,835
Twines for sale:		
All flax, pounds	3,845,978	969,469
All hemp, pounds	9,065,024	1,019,590
All jute, pounds	1,679,127	117,539
Flax or hemp, mixed with jute, pounds	12,924,067	1,101,203
Linen thread, pounds	4,021,044	2,332,287

TABLE 4.—FLAX, HEMP, AND JUTE PRODUCTS; KIND, QUANTITY, AND VALUE OF PRODUCTS: 1900—Cont'd.

	Quantity.	Value.
Binder twine:		
All manila, pounds	15,261,174	$1,546,428
Chiefly manila, pounds	24,975,568	2,316,257
All or chiefly sisal, pounds	125,372,687	10,322,896
Rope:		
Manila, pounds	83,347,459	8,330,113
Sisal, pounds	46,865,604	3,682,670
Jute, pounds	10,012,165	463,413
Cotton, pounds	1,615,824	247,250
Towels and toweling:		
All linen, square yards	4,598,615	471,633
Partly linen, square yards	2,051,247	281,258
Other woven fabrics:		
All linen, square yards	83,000	9,110
Partly linen, square yards	135,000	34,000
Jute burlaps, square yards		386,129
Jute carpets and rugs, square yards	2,953,658	357,568
Gunny bagging, square yards	74,090,760	3,462,479
Other spun or woven goods		1,051,689
Cotton:		
Bagging, square yards	248,204	21,864
Yarn, pounds	946,567	98,928
Twine, pounds	8,691,707	1,133,640
Batting, pounds	198,000	7,125
Waste, pounds	1,254,619	20,146
Other products of cotton		715,613
All other products		2,744,504

CORDAGE AND TWINE.

Three general classes of establishments are included in the following statistics under the head of cordage and twine. The first and smallest, having regard to the items of capital, number of wage-earners, wages, and value of products, consists of those whose chief business is the manufacture of yarn—cotton, for the most part, but also linen and silk—into the finer varieties of twine and into cotton rope; the second, of those which produce binder twine on a large scale; the third, of those which manufacture hempen rope. Since no useful purpose would be served by separating the returns of these several classes they are reported together; but the important facts regarding the several industries, so far as they are distinct, are easily ascertained from the statistics of the quantity and value of the fibers consumed, and of the quantity and value of the several products. At previous censuses no special inquiry was made concerning any of the characteristic features of the industries grouped under this head, and no facts were reported other than those which appear in the following comparative summary:

TABLE 5.—CORDAGE AND TWINE; COMPARATIVE SUMMARY, 1880 TO 1900.

	1900	1890	1880
Number of establishments	105	150	165
Capital	$29,275,470	$23,351,883	$7,140,475
Salaried officials, clerks, etc., number	436	[1] 414	[2]
Salaries	$666,936	[1] $560,639	[2]
Wage-earners, average number	13,114	12,385	5,435
Total wages	$4,113,112	$3,976,232	$1,558,676
Men, 16 years and over	7,341	6,412	2,926
Wages	$2,751,787	$2,547,985	[2]
Women, 16 years and over	4,797	5,010	1,480
Wages	$1,212,823	$1,280,065	[2]
Children, under 16 years	976	963	1,029
Wages	$148,502	$148,182	[2]
Miscellaneous expenses	$1,716,205	$1,020,697	[3]
Cost of materials used	$26,632,006	$24,051,666	$9,330,261
Value of products	$37,849,651	$33,312,559	$12,492,171

[1] Includes proprietors and firm members, with their salaries; number only reported in 1900.
[2] Not reported separately.
[3] Not reported.

The tendency toward a consolidation of small establishments and the transaction of business on a larger scale was observable ten years ago, when a decreased number of establishments reported a capital more than threefold greater than in 1880, and a value of products nearly threefold greater. At the census of 1900 the number of separate establishments declined, as compared with 1890, almost one-third, yet the value of products was larger. The statistics of capital are not strictly comparable, since the method of ascertaining the amount has been different at each census. The fact of an increase may be inferred, but the rate of increase can not properly be deduced from the figures given. This is also true respecting the returns of the average number of persons employed, the method of ascertaining such average having been changed. In general, it appears that the number of wage-earners has not increased greatly, if at all, within the last decade.

The kind, quantity, and cost of the materials used in the production of cordage and twine, and the quantity and value of the several products are presented in Tables 6 and 7.

TABLE 6.—CORDAGE AND TWINE; KIND, QUANTITY, AND COST OF MATERIALS USED: 1900.

	Pounds.	Cost.
Total	418,416,811	$26,632,006
Cotton:		
Raw (26,540 bales)	13,022,755	849,426
Yarn	3,860,235	505,041
Waste	798,182	37,692
Flax fiber:		
European—		
Rough	757,672	76,615
Tow	345,959	23,191
Line	54,592	7,243
Canadian—		
Rough	768,021	56,688
Tow	49,157	3,188
Domestic—		
Rough	200,000	24,000
Tow	703,943	64,186
Line	487,980	65,247
Linen yarn	299,135	83,525
Hemp:		
Manila	123,241,820	8,916,493
Sisal	146,352,853	8,827,131
New Zealand	6,344,371	352,528
Russian—		
Rough	1,175,605	73,165
Tow	44,090	1,969
Line	349,558	25,063
Italian—		
Rough	3,422,104	256,582
Tow	305,917	20,969
Line	296,920	27,752
American—		
Rough	10,871,865	506,767
Tow	3,011,004	104,660
Line	1,258,266	63,965
Jute	25,767,800	786,967
Butts	74,281,100	1,107,899
Yarns:		
Jute	339,051	21,070
Silk	4,774	24,414
Spun	1,100	3,450
Worsted	682	308
All other materials		3,714,812

TABLE 7.—CORDAGE AND TWINE; KIND, QUANTITY, AND VALUE OF PRODUCTS: 1900.

	Quantity.	Value.
Total		$37,849,651
Twine:		
Cotton, pounds	8,691,707	1,133,640
Flax, pounds	2,187,540	602,471
Hemp, pounds	8,299,902	895,074
Jute, pounds	1,589,127	111,239
Flax or hemp, mixed with jute, pounds	12,924,067	1,101,203
Binder twine:		
Manila, pounds	15,261,174	1,546,428
Chiefly manila, pounds	24,975,568	2,316,257
All or chiefly sisal, pounds	125,372,687	10,322,896
Rope:		
Cotton, pounds	1,615,824	247,250
Manila, pounds	83,347,459	8,330,113
Sisal, pounds	46,865,604	3,682,670
Jute, pounds	5,717,317	250,760
Gunny bagging, square yards	41,310,695	2,035,636
Jute burlap		150,000
Yarn:		
Cotton, pounds	946,567	98,928
Flax and hemp, tow, pounds	2,552,955	345,913
Flax and hemp, line, pounds	10,000	4,800
Jute, pounds	9,554,188	621,687
Linen thread, pounds	100,000	17,000
Waste, pounds	1,254,619	20,146
Batting and wadding, pounds	198,000	7,125
Other spun or woven goods	6,241,449	534,265
All other products, cotton		715,613
All other products		2,758,537

JUTE AND JUTE GOODS.

The jute manufacture was represented at the Tenth Census by 4 establishments only, having a total capital of $415,000, and products valued at $696,982. Seven establishments were reported at the Eleventh Census under the head of jute and jute goods. It is probable, however, that some which were classed as "bagging, flax, hemp, and jute" are, in the reports for 1900, included in the class of jute and jute goods, since it appears that only 2 of the 18 establishments now making returns have come into existence during the decade. Under these circumstances a comparison of the statistics for 1900 with those of former census years would be misleading. The principal facts relating to the industry for 1900 are presented in the following summary:

TABLE 8.—JUTE AND JUTE GOODS: 1900.

Number of establishments	18
Capital	$7,027,293
Salaried officials, clerks, etc., number	88
Salaries	$147,313
Wage-earners, average number	4,506
Total wages	$1,181,790
Men, 16 years and over	1,611
Wages	$579,877
Women, 16 years and over	2,064
Wages	$480,732
Children, under 16 years	831
Wages	$121,181
Miscellaneous expenses	$574,986
Cost of materials used	$3,015,362
Value of products	$5,383,797

Table 9 shows the kind, quantity, and cost of the materials employed in the manufacture.

TABLE 9.—JUTE AND JUTE GOODS; KIND, QUANTITY, AND COST OF MATERIALS USED: 1900.

	Pounds.	Cost.
Total	109,049,701	$3,015,362
Jute	61,603,929	1,642,318
Butts	44,525,525	687,754
Yarns	670,600	48,434
Hemp:		
Italian	1,363,431	83,303
American	584,328	27,354
Cotton yarn	301,888	33,834
All other materials		492,365

Table 10 presents a classification of the principal products of the establishments reporting.

TABLE 10.—JUTE AND JUTE GOODS; KIND, QUANTITY, AND VALUE OF PRODUCTS: 1900.

	Quantity.	Value.
Total		$5,383,797
Jute yarn ..... pounds	44,717,672	2,609,148
Twine ..... do	90,000	6,300
Rope ..... do	4,294,848	212,653
Burlaps ..... square yards	4,361,635	236,129
Gunny bagging ..... do	32,780,065	1,426,843
Carpets and rugs ..... do	2,953,658	357,568
Flax or hemp yarns ..... pounds	1,286,155	165,788
Other spun or woven goods		364,821
All other products		4,547

LINEN MANUFACTURE.

The report upon the linen industry at the census of 1890 was most meager. Three establishments only producing linen goods were included in the general summary of manufactures; 2 others which made linen thread came under the rule which forbids the separate tabulation of less than 3 establishments, and were placed under "all other industries." Inasmuch as both classes of establishments are reported together in the following tables, the facts relating to the 5 establishments reporting in 1890 are now published for the first time for purposes of comparison.

TABLE 11.—LINEN GOODS; COMPARATIVE SUMMARY: 1890 AND 1900.

	1900.	1890.
Number of establishments	18	5
Capital	$5,688,999	$2,734,130
Salaried officials, clerks, etc., number	117	126
Salaries	$142,941	[1] $25,530
Wage-earners, average number	3,283	1,940
Total wages	$1,036,839	$527,572
Men, 16 years and over	1,044	648
Wages	$492,891	$255,409
Women, 16 years and over	1,787	1,193
Wages	$480,597	$256,187
Children, under 16 years	452	99
Wages	$63,351	$15,976
Miscellaneous expenses	$387,095	$242,977
Cost of materials used	$2,550,517	$1,594,769
Value of products	$4,368,159	$2,880,341

[1] Includes proprietors and firm members, with their salaries; number only reported in 1900.

Inasmuch as the tables deal with so small a number of establishments, many of them still in the period of experiment, no deduction is justified or would be safe, further than that the industry has expanded greatly.

The materials used, consisting of hemp, flax, jute, and cotton, in great variety and in various stages of manufacture, are summarized in Table 12.

TABLE 12.—LINEN GOODS; KIND, QUANTITY, AND COST OF MATERIALS USED: 1900.

	Pounds.	Cost.
Total	17,983,084	$2,550,517
Hemp:		
Russian—		
Tow	74,000	3,900
Italian—		
Rough	2,543,811	194,037
Line	38,938	4,028
American—		
Rough	40,875	1,955
Tow	190,007	7,474
Line	17,996	1,710
Flax:		
European—		
Rough	4,823,239	591,831
Tow	3,381,204	229,568
Line	3,334,049	799,450
Canadian—		
Rough	1,204,799	99,063
Tow	197,893	15,720
Line	131,736	20,643
Domestic—		
Rough	500,000	1,750
Tow	40,102	2,479
Flax or hemp yarn	582,006	151,132
Cotton yarn	810,957	171,014
Jute	71,472	2,141
All other materials		252,619

Table 13 shows the kind, quantity, and value of the principal products during the census year of the establishments reporting.

TABLE 13.—LINEN GOODS; KIND, QUANTITY, AND VALUE OF PRODUCTS: 1900.

	Quantity.	Value.
Total		$4,368,159
Flax or hemp yarn, tow ..... pounds	4,178,117	556,392
Flax or hemp yarn, line ..... do	232,426	53,078
Twine, all flax ..... do	1,658,438	366,998
Twine, all hemp ..... do	765,122	124,516
Linen thread ..... do	3,921,044	2,315,287
Towels and toweling, all linen ..... square yards	4,598,615	471,633
Towels and toweling, partly linen ..... do	2,051,247	281,258
Other woven fabrics, all linen ..... do	83,000	9,110
Other woven fabrics, partly linen ..... do	135,000	34,000
Other spun or woven goods		152,603
All other products		3,284

The linen industry has never obtained a firm foothold in the United States. In colonial times efforts were made to promote the growth of flax, and to introduce the spinning and weaving of the fiber. It was the policy of the mother country to repress manufactures in the colonies, but the production of linen goods was a domestic industry, which England could not and did not try to prevent. The cultivation of flax was undertaken on a small scale, and the spinning wheel and the handloom were the only available machinery for working it into cloth. It is probable that there was in America

scarcely any manufacture of linen for sale. That which was made was a home product intended solely for consumption in the families of the weavers. The factory system had not been generally established even on the other side of the Atlantic. Nevertheless flax was already cultivated on a generous scale in many districts of Ireland, France, Germany, and other countries, and large numbers of persons were employed in preparation of the fiber and manufacture of linen for the market.

It is extremely probable that the desire of the American people to introduce manufactures, thus supplementing their political with industrial and commercial independence, would have led them to engage largely in the production of linen fabrics had not the invention of the cotton gin by Eli Whitney (patented in 1793) placed in their hands a fiber cheaper than flax, more tractable, requiring less care in preparation, more easily spun and woven, superior for many purposes and decidedly inferior for very few. At all events, the effort to introduce the linen manufacture was practically abandoned for the time being, and, until recently, the attempts to establish it in the United States have been spasmodic and unsuccessful. The difficulties in the path of manufacturers are many. There is, to speak broadly, no American production of fiber suitable for spinning. Flax is grown in great quantities, but it is cultivated chiefly for the seed and not for the fiber.

The process of retting involves the expenditure of too much time and labor to be profitable to American farmers. Consequently it is necessary to rely almost wholly upon foreign importations for the raw material. Moreover, the intermediate processes of manufacture, as well as the spinning and weaving of a fiber greatly lacking in elasticity, require so much skill and care that the margin of profit is precarious. And finally, the demand for the finished product is far from being so broad and imperative as is that for articles of cotton, wool, and silk. Linen is indispensable for fine fabrics for the dining table, for thread and twine where great strength is required, and for the best quality of toweling; but for the thousand and one uses to which ordinary cloth is put, cotton would be generally preferred by consumers, even if the cost were the same.

It will be inferred from these statements that the linen industry in the United States at the present time is not extensive, nor does the prospect seem bright. Nevertheless, measured by percentages, the increase during the last ten years has been great. There are certain fields which American manufacturers can occupy to advantage. There is a large demand for linen carpet-yarns; our immense shoe manufacturing industry requires a great quantity of linen thread; and the market for towels and toweling is practically unlimited. The first two of these fields our manufacturers have occupied for many years. The third they have entered more generally during the past ten years than ever before. This was rendered possible by a readjustment of tariff rates in the act of 1897. The duty on the yarns required for such branches of the manufacture as Americans now think it expedient to engage in, was reduced to a revenue basis, and the duty on manufactured goods was raised.

The manufacture of linen toweling, which shows the largest extension of any branch of linen manufacture during the decade, is not fully reported in the general tables. Several large cotton manufacturing establishments have engaged in this industry; and although their use of nearly one and a half million pounds of linen yarn is reported among the materials consumed, the schedules issued to them made no provision for a separate report of the character, quantity, or value of their linen products.

Table 14 is a detailed statement of the statistics for flax, hemp, and jute products, by states, for 1900.

TABLE 14.—FLAX, HEMP, AND JUTE PRODUCTS, BY STATES: 1900.

	United States.	Alabama.	Connecticut.	Kentucky.	Massachusetts.	New Jersey.
Number of establishments	141	4	8	6	28	6
Character of organization:						
Individual	36	.....	7	2	7	.....
Firm and limited partnership	31	.....	.....	2	5	1
Incorporated company	74	4	1	2	16	5
Capital:						
Total	$41,991,762	$298,448	$297,962	$459,295	$10,223,490	$3,413,163
Land	$2,457,349	$27,026	$8,000	$1,500	$491,974	$252,421
Buildings	$5,146,574	$45,951	$25,300	$40,200	$1,298,786	$794,320
Machinery, tools, and implements	$9,789,559	$169,976	$85,400	$202,789	$1,839,725	$851,805
Cash and sundries	$24,598,280	$55,495	$179,262	$214,806	$6,593,005	$1,514,617
Proprietors and firm members	100	.....	7	7	16	1
Salaried officials, clerks, etc.:						
Total number	641	10	5	23	136	57
Total salaries	$957,190	$10,980	$3,500	$26,024	$203,943	$80,551
Officers of corporations—						
Number	145	7	2	5	25	5
Salaries	$422,046	$8,040	$1,950	$10,000	$92,741	$15,700
General superintendents, managers, clerks, etc.—						
Total number	496	3	3	18	111	52
Total salaries	$535,144	$2,940	$1,550	$16,024	$111,202	$64,851
Men—						
Number	442	3	2	16	95	51
Salaries	$509,158	$2,940	$1,050	$15,244	$102,630	$64,212
Women—						
Number	54	.....	1	2	16	1
Salaries	$25,986	.....	$500	$780	$8,572	$639

TABLE 14.—FLAX, HEMP, AND JUTE PRODUCTS, BY STATES: 1900—Continued.

	United States.	Alabama.	Connecticut.	Kentucky.	Massachusetts.	New Jersey.
Wage-earners, including pieceworkers, and total wages:						
Greatest number employed at any one time during the year	24,947	306	274	588	5,195	2,332
Least number employed at any one time during the year	17,588	258	251	389	4,075	1,963
Average number	20,903	282	265	492	4,693	2,127
Wages	$6,331,741	$47,643	$69,544	$149,937	$1,562,862	$624,988
Men, 16 years and over—						
Average number	9,996	89	142	285	2,649	656
Wages	$6,824,555	$25,771	$43,016	$109,746	$1,020,085	$295,008
Women, 16 years and over—						
Average number	8,648	105	120	162	1,770	1,069
Wages	$2,174,152	$13,525	$25,988	$34,176	$490,991	$271,744
Children, under 16 years—						
Average number	2,259	88	3	45	274	462
Wages	$333,034	$8,347	$540	$6,015	$51,786	$58,236
Miscellaneous expenses:						
Total	$2,678,286	$14,654	$6,443	$39,847	$601,542	$223,118
Rent of works	$158,753	$775	$387	$3,530	$7,170	$600
Taxes, not including internal revenue	$222,670	$1,749	$1,782	$1,633	$85,334	$34,569
Rent of offices, insurance, interest, and all sundry expenses not hitherto included	$2,270,745	$12,130	$4,274	$34,684	$506,884	$187,949
Contract work	$26,118	.....	.....	.....	$2,154	.....
Materials used:						
Total cost	$32,197,885	$166,145	$196,332	$341,515	$7,539,433	$1,760,426
Principal materials	$27,746,312	$151,668	$179,168	$309,278	$6,782,696	$1,616,754
Fuel	$390,746	$5,557	$2,212	$6,145	$106,986	$28,645
Rent of power and heat	$19,343	.....	$306	.....	$4,965	$4,563
Mill supplies	$736,820	$3,877	$6,208	$7,169	$278,951	$54,756
All other materials	$3,001,923	$2,300	$209	$10,190	$343,642	$45,219
Freight	$302,741	$2,743	$8,229	$8,733	$22,193	$10,489
Products:						
Total value	$47,601,607	$253,560	$312,446	$602,701	$11,388,933	$2,955,844

	New York.	Ohio.	Pennsylvania.	Rhode Island.	Wisconsin.	All other states.[1]
Number of establishments	22	9	21	5	5	27
Character of organization:						
Individual	3	1	8	3	.....	5
Firm and limited partnership	5	1	8	1	3	5
Incorporated company	14	7	5	1	2	17
Capital:						
Total	$10,311,768	$2,147,677	$6,162,509	$95,947	$213,565	$8,367,938
Land	$422,704	$65,415	$441,671	$3,000	$25,000	$718,638
Buildings	$925,858	$272,751	$636,950	$15,000	$26,870	$1,064,588
Machinery, tools, and implements	$2,734,491	$624,270	$1,233,540	$39,226	$102,310	$1,906,027
Cash and sundries	$6,228,715	$1,185,241	$3,850,348	$38,721	$59,385	$4,678,685
Proprietors and firm members	15	2	25	7	6	14
Salaried officials, clerks, etc.:						
Total number	148	47	90	4	11	110
Total salaries	$306,331	$54,205	$103,788	$2,670	$8,840	$156,358
Officers of corporations—						
Number	30	11	8	.....	4	48
Salaries	$156,755	$17,250	$31,700	.....	$2,760	$85,150
General superintendents, managers, clerks, etc.—						
Total number	118	36	82	4	7	62
Total salaries	$149,576	$36,955	$72,088	$2,670	$6,080	$71,208
Men—						
Number	104	32	72	4	7	56
Salaries	$142,627	$34,999	$67,960	$2,670	$6,080	$68,746
Women—						
Number	14	4	10	.....	.....	6
Salaries	$6,949	$1,956	$4,128	.....	.....	$2,462
Wage-earners, including pieceworkers, and total wages:						
Greatest number employed at any one time during the year	6,439	1,574	2,919	112	142	5,066
Least number employed at any one time during the year	4,428	764	2,331	57	115	2,957
Average number	5,450	1,052	2,683	84	128	3,647
Wages	$1,713,614	$317,909	$761,582	$22,175	$35,085	$1,026,402
Men, 16 years and over—						
Average number	2,657	725	1,089	38	46	1,620
Wages	$1,039,333	$255,095	$449,927	$11,694	$17,291	$557,589
Women, 16 years and over—						
Average number	2,312	315	1,083	46	61	1,665
Wages	$592,893	$60,766	$238,628	$10,481	$15,779	$419,181
Children, under 16 years—						
Average number	481	12	511	.....	21	362
Wages	$81,388	$2,048	$73,027	.....	$2,015	$49,632
Miscellaneous expenses:						
Total	$782,719	$96,471	$147,126	$8,052	$7,574	$750,740
Rent of works	$125,234	$1,151	$2,600	$2,150	$44	$15,112
Taxes, not including internal revenue	$40,915	$10,174	$7,526	$246	$1,103	$37,639
Rent of offices, insurance, interest, and all sundry expenses not hitherto included	$616,570	$85,146	$114,603	$4,089	$6,427	$697,989
Contract work	.....	.....	$22,397	$1,567	.....	.....
Materials used:						
Total cost	$7,516,240	$2,325,907	$5,448,323	$63,954	$109,016	$6,730,594
Principal materials	$6,781,255	$2,170,059	$3,298,823	$57,423	$103,050	$6,296,138
Fuel	$116,905	$20,915	$29,091	$707	$2,136	$71,447
Rent of power and heat	$8,012	.....	$60	$750	.....	$687
Mill supplies	$164,676	$28,709	$95,079	$656	$1,757	$94,982
All other materials	$412,079	$46,923	$1,950,491	$4,131	$700	$186,039
Freight	$33,313	$59,301	$74,779	$287	$1,373	$81,301
Products.						
Total value	$11,674,669	$2,957,674	$7,256,548	$108,715	$185,166	$9,905,351

[1] Includes states having less than 3 establishments in order that the operations of individual establishments may not be disclosed. These establishments are distributed as follows: Arkansas, 1; California, 2; Delaware, 1; Georgia, 1; Illinois, 2, Indiana, 1; Iowa, 1; Kansas, 1; Maine, 2; Maryland, 1; Michigan, 1; Minnesota, 1, Mississippi, 1; Missouri, 2, New Hampshire, 1; North Carolina, 2; Oregon, 1; South Carolina, 1; Tennessee, 2; Texas 2.

DYEING AND FINISHING TEXTILES.

DYEING AND FINISHING TEXTILES.

By Edward Stanwood, *Expert Special Agent.*

Dyeing and finishing textiles is carried on as an industry in independent establishments, and also as one of the processes in a considerable number of the factories engaged in cotton, wool, and silk manufactures. The various statistics relating to capital, employees, wages, miscellaneous expenses, cost of materials, and value of products, as to the independent establishments, must be given in order to complete the information regarding the textile industry as a whole. In the presentation of these statistics the rule adopted at all previous censuses, except one, has been followed. Inasmuch as all the material operated upon—yarn, cloth, hosiery, etc.—was reported by other textile establishments as products of manufacture, a return by the establishments exclusively engaged in dyeing and finishing textiles of the total value of the articles after the dyeing and finishing would have resulted in great duplication. For this reason the yarn and fabrics have been totally excluded from the statement of materials, and only the value added to the materials by the processes have been given as the value of the products of this particular branch of the textile industry.

The magnitude of the business of dyeing and finishing can be ascertained only by combining the statistics of independent establishments with similar information as to this work in other branches of the textile industry. Outside of the independent establishments, however, the finishing processes are subordinate to the process of manufacture, and the schedules provided for the taking of the textile industry were not sufficiently uniform in the details relating to dyeing and finishing to render a full presentation possible. Thus, the wool schedule calls for the value of chemicals and dye stuffs used in the mills devoted to that industry, but not for the amount of goods operated upon. On the other hand, the silk schedule calls for the amount of goods operated upon, but not for the value of chemicals and dye stuffs used.

The total cost of chemicals and dye stuffs used in all textile establishments in 1890 and 1900 so far as reported was as follows:

	1900	1890
Total	$25,392,573	$19,686,663
Independent dyeing and finishing establishments	10,667,621	8,407,693
Other textile establishments	14,724,952	11,278,970
Cotton manufactures	5,718,107	4,266,773
Wool manufactures [1]	7,983,684	5,889,612
Hosiery and knit goods	1,023,161	564,053
Silk manufactures [2]		558,532

[1] Including woolen goods; worsted goods; carpets and rugs, other than rag felt goods; and wool hats in 1890 and 1900.
[2] Not reported separately in 1900.

The increase in cost of chemicals and dye stuffs for the last decade has been marked; for the independent establishments from $8,407,693 in 1890 to $10,667,621 in 1900, an increase of $2,259,928, or 26.9 per cent; and in cotton and wool manufactures, including hosiery and knit goods, from $10,720,438 to $14,724,952, an increase of $4,004,514, or 37.4 per cent.

The large decrease in the price of merchandise in the decade is to be taken into account in examining the foregoing table. The quantity of chemicals used and the quantity of yarn and cloth operated upon increased in a much greater ratio than the value represented in products. In the case of some articles the increase can be shown. For example, the amount of cotton piece goods printed in 1890 was 722,257,451 square yards, of which 579,667,368 square yards were printed in independent establishments and 142,590,083 in cotton mills. In 1900 the aggregate was 1,233,191,438 square yards, an increase of 70.7 per cent. Of this, 940,450,338 square yards were printed by independent establishments and 292,741,100 square yards in cotton

mills, an increase of 62.2 per cent and 105.3 per cent, respectively.

The facts relating to the dyeing and finishing of cotton goods and silk goods are set forth in the reports on those branches of the textile industry. It has been explained that those relating to the wool industry are not ascertainable in a way to throw much light upon the subject. The following tables and remarks apply to the independent establishments only.

Table 1 presents a comparative summary of the industry of dyeing and finishing textiles during the last half century.

TABLE 1.—COMPARATIVE SUMMARY, 1850 TO 1900, WITH PER CENT OF INCREASE FOR EACH DECADE.

	DATE OF CENSUS.						PER CENT OF INCREASE.				
	1900	1890	1880	1870	1860	1850	1890 to 1900	1880 to 1890	1870 to 1880	1860 to 1870	1850 to 1860
Number of establishments	298	248	191	42	29	42	20.2	29.8	354.8	44.8	[1]31.0
Capital	$60,643,104	$38,450,800	$26,223,981	$13,367,553	$3,517,250	$3,922,800	57.7	46.6	96.2	280.1	[1]10.3
Salaried officials, clerks, etc., number	1,318	[2]666	[3]	[3]	[3]	[3]	97.9	.....	.....	.....	.....
Salaries	$2,267,128	[2]$805,291	[3]	[3]	[3]	[3]	181.5	.....	.....	.....	.....
Wage-earners, average number	29,776	19,601	16,698	8,894	4,005	4,080	51.9	17.4	87.7	122.1	[1]1.8
Total wages	$12,726,316	$8,911,720	$6,474,364	$3,438,089	$1,088,296	$1,088,904	42.8	37.6	88.3	215.9	[1]0.1
Men, 16 years and over	24,419	16,510	12,788	6,092	3,433	3,351	47.9	29.1	109.9	77.5	2.4
Wages	$11,361,194	$8,147,844	[3]	[3]	[3]	[3]	39.4	.....	.....	.....	.....
Women, 16 years and over	4,253	2,298	2,038	1,393	572	729	85.1	12.8	46.3	143.5	[1]21.5
Wages	$1,166,972	$620,390	[3]	[3]	[3]	[3]	88.1	.....	.....	.....	.....
Children, under 16 years	1,104	793	1,872	1,409	[3]	[3]	39.2	[1]57.6	32.9	.....	.....
Wages	$198,150	$143,486	[3]	[3]	[3]	[3]	38.1	.....	.....	.....	.....
Miscellaneous expenses	$4,137,947	$3,131,081	[4]	[4]	[4]	[4]	32.2	.....	.....	.....	.....
Cost of materials used	$17,958,137	$12,385,220	$13,664,295	$46,373,358	$3,884,815	$10,462,044	45.0	[1]9.4	[1]70.5	1093.7	[1]62.9
Value of products	$44,963,331	$28,900,560	$32,297,420	$54,446,044	$7,971,064	$13,680,805	55.6	[1]10.5	[1]40.7	583.0	[1]41.7

[1] Decrease.
[2] Includes proprietors and firm members, with their salaries; number only reported in 1900, but not included in this table. (See Table 5.)
[3] Not reported separately.
[4] Not reported.

The statements for 1850 and 1860 included only the statistics of calico printing and satinet printing, but it may be fairly assumed that these processes were substantially the only ones which came properly under the head of dyeing and finishing tha' were then performed on a large scale in the United States. During the last half century the amount of capital employed in the industry has increased more than fifteenfold. It nearly doubled between 1870 and 1880, increased 46.6 per cent between 1880 and 1890, and 57.7 per cent during the last decade. The number of wage-earners increased at a smaller ratio, but the increase from 1890 to 1900 was substantially equal to the increase of capital.

The statements of materials used and value of products are necessarily misleading in one respect, namely, that in 1870 the total value of the yarn and cloth operated upon were reported as cost of materials, and the value of the goods after the operations were performed was reported as the total value. This accounts for the inconsistency in the cost of materials and value of products shown for 1870 compared with similar items at other censuses.

Table 2 exhibits the general facts relating to the industry in detail as ascertained at the censuses of 1890 and 1900.

TABLE 2.—COMPARATIVE SUMMARY BY STATES: 1890 AND 1900.

STATES.	Year.	Number of establishments.	CAPITAL. Total.	Land.	Buildings.	Machinery, tools, and implements.	Cash and sundries.	SALARIED OFFICIALS, CLERKS, ETC. Number.	Salaries.	AVERAGE NUMBER WAGE-EARNERS AND TOTAL WAGES. Average number.	Total wages.	Men, 16 years and over.	Women, 16 years and over.	Children, under 16 years.
United States..	1900	298	$60,643,104	$5,304,949	$12,251,886	$17,750,574	$25,335,695	1,318	$2,267,128	29,776	$12,726,316	24,419	4,253	1,104
	1890	248	38,450,800	2,579,114	7,596,641	9,703,284	18,571,761	666	805,291	19,601	8,911,720	16,610	2,298	793
Connecticut	1900	5	3,243,744	482,100	1,004,388	929,262	827,994	39	100,884	1,300	578,756	1,015	238	47
	1890	5	775,352	58,700	331,184	231,212	154,256	12	14,250	477	237,102	390	85	2
Illinois.....	1900	4	113,694	7,500	42,000	50,800	13,394	7	6,700	84	27,878	69	10	5
	1890	3	26,500	3,500	6,000	11,500	6,000	5	2,532	16	7,892	13	3	.....
Kentucky.....	1900	3	161,239	7,800	28,922	55,455	69,062	7	9,090	116	45,225	83	25	8
	[1]1890	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Massachusetts ..	1900	37	15,206,200	1,161,503	1,960,972	2,499,388	9,584,337	239	547,862	4,678	2,081,015	3,846	735	97
	1890	33	11,996,154	673,931	2,010,687	2,502,895	6,808,641	82	99,320	4,270	1,809,787	3,527	539	204
New Hampshire	1900	5	883,704	61,000	153,000	173,500	496,204	21	23,900	1,028	451,960	789	239	.....
	[2]1890	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
New Jersey	1900	59	11,600,695	651,481	2,100,396	4,624,059	4,224,759	353	614,910	7,074	3,003,491	6,120	786	168
	1890	41	5,197,403	333,936	879,577	1,782,696	2,201,194	129	179,425	3,735	1,878,137	3,335	346	54
New York	1900	42	6,230,657	339,909	1,335,748	2,097,541	2,457,459	107	134,345	3,117	1,424,578	2,395	636	86
	1890	49	4,963,095	366,300	721,700	1,137,566	2,737,529	114	137,473	2,725	1,344,250	2,174	415	136
North Carolina .	1900	5	293,831	4,700	33,800	184,022	71,309	8	6,650	184	45,340	142	42	.....
	[1]1890	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pennsylvania...	1900	105	7,679,906	733,612	1,290,133	2,368,629	3,287,532	216	260,277	4,716	2,065,752	4,013	346	357
	1890	83	6,296,340	598,647	1,354,200	1,839,121	2,504,372	190	207,257	3,355	1,596,565	2,964	212	179
Rhode Island ...	1900	24	12,853,123	1,572,306	3,765,314	3,862,803	3,652,700	256	449,996	5,942	2,474,042	4,644	1,039	259
	1890	22	5,739,692	432,600	1,832,398	1,498,323	1,976,371	101	130,059	3,619	1,462,996	2,904	570	145
All other states[3].	1900	9	2,376,311	283,038	537,213	905,115	650,945	65	112,514	1,537	528,279	1,303	157	77
	1890	12	3,456,264	111,500	460,895	700,471	2,183,398	33	34,975	1,404	574,991	1,203	128	73

STATES.	Year.	Number of establishments.	Miscellaneous expenses.	COST OF MATERIALS USED. Total.	Chemicals and dyestuffs.	Starch.	Soap.	Fuel.	Rent of power and heat.	All other materials.	Value of products.
United States ..	1900	298	$4,137,947	$17,958,137	$10,667,621	$874,643	$563,809	$2,165,091	$53,730	$3,633,243	$44,963,331
	1890	248	3,131,081	12,385,220	8,407,693	660,577	279,272	1,647,848	23,138	1,366,692	28,900,560
Connecticut.....	1900	5	216,075	907,377	561,619	36,715	17,129	113,780	7,955	170,179	2,269,967
	1890	5	77,336	300,360	114,126	17,815	2,049	58,711	.....	107,659	715,388
Illinois	1900	4	5,913	32,523	18,966	560	445	7,546	.....	5,006	86,960
	1890	3	1,426	6,846	4,270	.....	504	1,072	.....	1,000	26,741
Kentucky	1900	3	9,702	84,023	71,518	4,162	160	6,300	180	1,703	179,123
	[1]1890	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Massachusetts....	1900	37	866,829	3,110,910	2,031,072	160,016	9,506	393,711	5,512	511,093	8,868,290
	1890	33	869,669	2,801,364	1,950,550	125,288	25,599	404,778	6,413	288,736	6,496,215
New Hampshire..	1900	5	111,478	636,469	309,296	23,646	25,034	74,451	50	203,992	1,328,319
	[2]1890	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
New Jersey.....	1900	59	809,580	4,513,768	2,755,553	165,728	224,298	411,178	9,497	947,514	10,488,963
	1890	41	752,461	2,711,121	2,068,192	109,466	83,775	239,329	2,500	207,859	6,183,397
New York.....	1900	42	210,395	1,402,373	689,825	63,124	46,131	202,074	8,564	392,655	3,625,882
	1890	49	367,935	1,454,119	889,577	73,836	44,321	216,618	4,775	224,992	3,636,051
North Carolina...	1900	5	13,366	95,210	13,000	14,834	220	10,767	.....	56,389	175,754
	[1]1890	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pennsylvania	1900	105	556,083	3,174,507	2,068,174	94,373	172,970	342,671	8,772	487,547	7,038,012
	1890	83	419,456	2,395,482	1,808,041	107,269	80,793	284,546	6,250	108,583	5,240,761
Rhode Island.....	1900	24	1,138,065	3,087,781	1,653,059	205,321	62,048	513,837	20	653,496	8,484,878
	1890	22	393,549	1,819,351	1,064,475	129,050	32,205	351,521	1,200	240,900	4,743,561
All other states[3]..	1900	9	200,461	913,196	495,539	106,164	5,868	88,776	13,180	203,669	2,417,187
	1890	12	249,249	896,577	508,462	97,853	10,026	91,273	2,000	186,963	1,858,446

[1] No establishments reported, 1890.
[2] Included in "all other states," 1890.
[3] Includes establishments distributed as follows: 1900—Alabama, 1; Delaware, 2; Indiana, 1; Maine, 1; Maryland, 2; Ohio, 1; West Virginia, 1. 1890—Delaware, 1; Iowa, 1; Maine, 1; Maryland, 2; Minnesota, 1; Missouri, 1; New Hampshire, 2; Ohio, 2; West Virginia, 1.

The number of independent establishments increased during the decade from 248 to 298. Of this increase, 22 are credited to Pennsylvania and 18 to New Jersey, and they indicate a great extension of the business of silk dyeing and finishing in the 2 states where the silk industry is most concentrated. The increase in the other items is more nearly equalized among the states owing to the expansion of individual establishments. Thus, in Connecticut the amount of capital reported is more than four times as great in 1900 as in 1890, although the number of establishments is the same. Rhode Island, with only 2 additional establishments, has more than doubled its capital, and Massachusetts, although adding but 4 establishments, has 26.8 per cent greater capital. The same fact appears in the statement of the average number of wage-earners, for although nearly one-half of the increase has taken place in the states of New Jersey and Pennsylvania, there has also been a large increase in the New England states, where the number of establishments has not substantially increased.

Of the total cost of materials used, $17,958,137, the cost of chemicals and dyestuffs represents a value of $10,667,621, or about 59.4 per cent of the whole. In 1890 the corresponding percentage was about 67.9 per cent—a fact which illustrates the decline which has taken place during the decade in the cost of such materials.

The increase in the added value given to fabrics by the processes to which they were subjected is 55.6 per cent in comparison with an increase of 45 per cent in the cost of materials used. The difference is due to the fact that, while the cost of materials has declined, the items of wages and miscellaneous expenses have not.

Table 3 presents the quantity and value of all classes of goods operated upon and value added in independent establishments, 1890 and 1900.

TABLE 3.—COMPARATIVE SUMMARY, KINDS AND QUANTITY OF GOODS OPERATED UPON AND VALUE ADDED BY INDEPENDENT ESTABLISHMENTS, 1890 AND 1900.

	1900		1890	
	Pounds.	Value.	Pounds.	Value.
Aggregate value		$44,963,331		$28,900,560
Total	118,097,838	8,097,439	85,575,424	6,001,754
Cotton stock, bleached	300,650	4,823		
Cotton stock, dyed	12,466,700	572,661	4,676,344	204,827
Wool stock, dyed	2,408,511	83,071	1,160,666	48,828
Cotton yarn, bleached	12,780,518	252,635		
Cotton yarn, dyed	54,103,555	2,226,912	48,762,759	2,036,127
Cotton yarn, mercerized	868,851	159,616		
Woolen yarn, dyed	20,755,984	557,001	17,999,651	751,801
Worsted yarn, dyed	8,474,562	491,291	9,342,157	493,974
Silk yarn, dyed	5,609,444	3,615,644	3,322,017	2,346,387
Spun silk yarn, dyed	329,063	133,785	311,830	119,810
	Square yards.	Value.	Square yards.	Value.
Total	2,511,485,729	$34,599,542	1,569,422,631	$22,514,000
Cotton piece goods, bleached	964,902,367	6,691,423	454,357,758	3,369,940
Cotton piece goods, dyed	559,480,339	7,585,204	446,496,822	5,671,488
Cotton piece goods, mercerized	7,973,506	400,118		
Cotton piece goods, printed	940,450,338	15,997,087	579,667,368	10,355,032
Woolen piece goods, dyed	11,243,394	451,864	20,779,034	652,998
Worsted piece goods, dyed	9,413,337	476,951		
Silk piece goods, dyed	14,340,796	481,463	7,405,399	394,777
Silk piece goods, printed	3,681,652	335,154		
Mixed piece goods, dyed		2,180,278	60,716,250	2,069,765
All other work done		2,266,350		384,806

Inasmuch as the dyeing and finishing of goods in cotton mills represents generally merely work upon their own products, the true measure of increase of the business is discovered more from the foregoing table than from a combination of the two. It will be seen that there has been an increase in almost all departments of dyeing and finishing, but the increase is much less marked in the case of woolen goods than in cotton and silk.

Table 4 shows, by states, with totals for the United States, the returns of establishments engaged in dyeing and finishing cotton, woolen, and worsted, silk, and mixed goods, and yarns, respectively, 1900, and Table 5 presents a detailed summary of the industry for 1900.

TABLE 4.—DYEING AND FINISHING TEXTILES.

COTTON GOODS AND YARNS.

	STATES.	Number of establishments.	Capital.	AVERAGE NUMBER OF WAGE-EARNERS AND TOTAL WAGES.				
				Average number.	Wages.	Men, 16 years and over.	Women, 16 years and over.	Children, under 16 years.
1	United States	173	$52,287,850	23,236	$9,847,474	18,847	3,433	956
2	Connecticut	5	3,243,744	1,300	578,756	1,015	238	47
3	Kentucky	3	161,239	116	45,225	83	25	8
4	Massachusetts	33	14,927,375	4,577	2,031,255	3,771	709	97
5	New Hampshire	4	675,704	903	409,960	749	154	.....
6	New Jersey	20	7,264,547	3,459	1,467,571	2,809	552	98
7	New York	17	4,959,763	2,143	997,175	1,708	349	86
8	North Carolina	5	293,831	184	45,340	142	42	.....
9	Pennsylvania	56	5,799,650	3,286	1,369,807	2,748	254	284
10	Rhode Island	20	12,573,769	5,760	2,389,911	4,531	973	256
11	All other states [1]	10	2,388,228	1,508	512,474	1,291	137	80

WOOLEN GOODS AND WORSTED GOODS AND YARNS.

1	United States	33	$1,561,790	1,236	$603,100	1,076	137	23
2	Massachusetts	3	128,749	64	23,819	44	20	.....
3	New York	3	63,322	45	19,965	44	1	.....
4	Pennsylvania	23	1,201,442	942	477,081	867	54	21
5	All other states [2]	4	168,277	185	82,235	121	62	2

MIXED GOODS AND YARNS.

1	United States	41	$2,355,930	1,416	$598,653	956	404	56
2	New Jersey	6	276,987	99	45,740	91	5	3
3	New York	10	1,010,952	685	288,464	444	241	.....
4	Pennsylvania	20	492,061	355	147,877	272	33	50
5	Rhode Island [3]	5	575,930	277	116,572	149	125	3

SILK GOODS AND YARNS.

1	United States	51	$4,437,534	3,888	$1,677,089	3,540	279	69
2	New Jersey	32	4,052,461	3,510	1,486,628	3,214	229	67
3	New York [4]	13	198,320	245	119,474	200	45	.....
4	Pennsylvania	6	186,753	133	70,987	126	5	2

[1] Includes establishments distributed as follows: Alabama, 1; Delaware, 2; Illinois, 2; Indiana, 1; Maine, 1; Maryland, 2; West Virginia, 1.
[2] Includes establishments distributed as follows: Illinois, 1; New Jersey, 1; Ohio, 1; Rhode Island, 1.
[3] Includes 1 establishment in Massachusetts and 1 in New Hampshire.
[4] Includes 1 establishment in Illinois.

BY CLASSES OF TEXTILES, 1900.

COTTON GOODS AND YARNS.

POWER.			Printing machines.	Miscellaneous expenses.	COST OF MATERIALS USED.					Value of products.	
Steam horse-power.	Water horse-power.	All other horse-power.			Total.	Chemicals and dyestuffs.	Fuel.	Rent of power and heat.	All other materials.		
49,415	9,074	3,316	298	$3,630,012	$14,019,084	$8,033,680	$1,827,815	$36,034	$4,121,555	$35,350,505	1
2,553	2,156	400	16	216,075	907,377	561,619	113,780	7,955	224,023	2,269,967	2
284	.....	40	1	9,702	84,023	71,518	6,300	180	6,025	179,123	3
11,662	2,300	122	68	857,065	3,035,697	1,984,716	382,562	5,512	662,907	8,698,626	4
20	375	.....	16	89,128	556,869	294,296	72,251	50	190,272	1,132,819	5
6,864	1,330	.....	53	599,590	2,246,230	1,112,252	251,519	6,237	876,222	5,247,300	6
5,139	240	.....	49	123,686	1,129,216	585,627	170,774	1,245	371,570	2,491,791	7
345	.....	5	.....	13,366	95,210	13,000	10,767	.....	71,443	175,750	8
7,464	35	.....	30	401,404	2,136,181	1,372,179	235,871	1,655	526,476	4,687,405	9
12,303	675	2,577	63	1,121,563	2,954,298	1,573,455	497,461	20	883,362	8,192,350	10
2,781	1,963	172	2	198,433	873,983	465,018	86,530	13,180	309,255	2,275,374	11

WOOLEN GOODS AND WORSTED GOODS AND YARNS.

1,792	260	124	.....	$115,894	$962,108	$641,413	$106,686	$4,150	$209,859	$2,104,418	1
150	60	3	.....	4,377	45,004	32,400	7,764	.....	4,840	102,114	2
10	200	4	.....	2,432	31,751	21,557	4,248	400	5,546	66,158	3
1,404	.....	107	.....	100,417	725,503	485,048	75,620	3,750	161,085	1,572,233	4
228	.....	10	.....	8,668	159,850	102,408	19,054	.....	38,388	363,913	5

MIXED GOODS AND YARNS.

2,671	140	79	20	$174,495	$616,644	$265,362	$68,131	$7,746	$275,405	$1,969,446	1
362	.....	20	.....	27,510	68,020	27,125	9,053	360	31,482	182,610	2
882	.....	39	6	65,935	174,016	40,898	20,962	4,119	108,037	804,213	3
1,015	.....	20	11	37,621	215,316	137,779	25,155	3,267	49,115	551,845	4
412	140	.....	3	43,429	159,292	59,560	12,961	.....	86,771	430,778	5

SILK GOODS AND YARNS.

4,204	.....	112	16	$217,546	$2,360,301	$1,727,166	$162,459	$5,800	$464,876	$5,538,962	1
3,767	.....	112	11	182,248	2,194,665	1,611,955	150,044	2,900	429,766	5,046,088	2
375	.....	.....	5	18,657	68,129	42,043	6,390	2,800	16,896	266,345	3
62	.....	.....	.....	16,641	97,507	73,168	6,025	100	18,214	226,529	4

TABLE 5.—DYEING AND FINISHING

		United States.	Connecticut.	Illinois.	Kentucky.
1	Number of establishments	298	5	4	3
	Character of organization:				
2	Individual	103		2	
3	Firm and limited partnership	81			1
4	Incorporated company	114	5	2	2
5	Miscellaneous				
	Capital:				
6	Total	$60,643,104	$3,243,744	$113,694	$161,239
7	Land	$5,304,949	$482,100	$7,500	$7,800
8	Buildings	$12,251,886	$1,004,388	$42,000	$28,922
9	Machinery, tools, and implements	$17,750,574	$929,262	$50,800	$55,455
10	Cash and sundries	$25,335,695	$827,994	$13,394	$69,062
11	Proprietors and firm members	300		2	3
	Salaried officials, clerks, etc.:				
12	Total number	1,318	39	7	7
13	Total salaries	$2,267,128	$100,884	$6,700	$9,090
	Officers of corporations—				
14	Number	211	16	1	2
15	Salaries	$814,895	$51,797	$2,500	$5,300
	General superintendents, managers, clerks, etc.—				
16	Total number	1,107	23	6	5
17	Total salaries	$1,452,233	$49,087	$4,200	$3,790
	Men—				
18	Number	994	21	3	5
19	Salaries	$1,401,799	$48,050	$2,700	$3,790
	Women—				
20	Number	113	2	3	
21	Salaries	$50,434	$1,037	$1,500	
	Wage-earners, including pieceworkers, and total wages:				
22	Greatest number employed at any one time during the year	33,387	1,511	113	128
23	Least number employed at any one time during the year	26,275	1,184	54	100
24	Average number	29,776	1,300	84	116
25	Wages	$12,726,316	$578,756	$27,878	$45,225
	Men, 16 years and over—				
26	Average number	24,419	1,015	69	83
27	Wages	$11,361,194	$507,632	$24,129	$39,987
	Women, 16 years and over—				
28	Average number	4,253	238	10	25
29	Wages	$1,166,972	$61,689	$2,925	$4,138
	Children under 16 years—				
30	Average number	1,104	47	5	8
31	Wages	$198,150	$9,435	$824	$1,100
	Average number of wage-earners, including pieceworkers, employed during each month:				
	Men, 16 years and over—				
32	January	24,387	950	71	89
33	February	24,093	976	83	87
34	March	24,497	979	83	86
35	April	24,728	1,004	73	86
36	May	24,506	988	74	85
37	June	24,020	1,003	72	82
38	July	23,836	1,012	72	75
39	August	23,885	1,029	68	75
40	September	24,020	1,029	73	77
41	October	24,757	1,031	60	81
42	November	25,070	1,084	57	89
43	December	25,229	1,090	48	89
	Women, 16 years and over—				
44	January	4,374	217	18	30
45	February	4,328	221	18	31
46	March	4,359	289	17	31
47	April	4,344	255	17	30
48	May	4,256	253	18	27
49	June	4,147	246	8	19
50	July	4,010	216	5	13
51	August	4,008	233	3	13
52	September	4,135	238	4	25
53	October	4,304	225	4	22
54	November	4,347	233	4	27
55	December	4,424	230	4	30
	Children, under 16 years—				
56	January	1,093	45	4	8
57	February	1,073	48	4	8
58	March	1,080	47	4	8
59	April	1,095	44	4	8
60	May	1,075	41	4	8
61	June	1,089	42	5	8
62	July	1,111	50	5	8
63	August	1,125	50	5	8
64	September	1,113	50	5	8
65	October	1,124	49	5	8
66	November	1,130	50	5	8
67	December	1,140	51	5	8
	Miscellaneous expenses:				
68	Total	$4,137,947	$216,075	$5,913	$9,702
69	Rent of works	$145,075		$900	$360
70	Taxes, not including internal revenue	$281,974	$16,084	$284	$640
71	Rent of offices, insurance, interest, and all sundry expenses not hitherto included	$3,669,163	$192,063	$4,729	$8,702
72	Contract work	$41,735	$7,928		
	Materials used:				
73	Aggregate cost	$17,958,137	$907,377	$32,523	$84,023
	Chemicals and dyestuffs—				
74	Cost	$10,667,621	$561,619	$18,966	$71,518
	Stareh—				
75	Pounds	33,850,002	1,359,532	46,087	138,754
76	Cost	$874,643	$36,715	$560	$4,162
	Silk soap—				
77	Pounds	5,105,575	4,200	2,500	
78	Cost	$232,706	$210	$135	
	Other soap—				
79	Pounds	9,835,976	469,612	10,000	3,200
80	Cost	$331,103	$16,919	$310	$160
81	Fuel	$2,165,091	$113,780	$7,546	$6,300
82	Rent of power and heat	$53,730	$7,955		$180
83	Mill supplies	$972,207	$18,840	$629	$650
84	All other materials	$2,171,482	$103,804	$558	$1,053
85	Freight	$489,554	$47,535	$3,819	

TEXTILES: BY STATES, 1900.

Massachusetts.	New Hampshire.	New Jersey.	New York.	North Carolina.	Pennsylvania.	Rhode Island.	All other states.[1]	
37	5	59	42	5	105	24	9	1
9	3	22	16	2	46	2	2	2
6	.....	7	15	1	46	2	.....	3
22	2	30	11	2	13	20	7	4
.....	.....	.....	.....	.....	.....	.....	.....	5
$15,206,200	$883,704	$11,600,695	$6,230,657	$293,831	$7,679,906	$12,853,123	$2,376,311	6
$1,161,503	$61,000	$651,481	$339,909	$4,700	$733,612	$1,572,306	$283,038	7
$1,960,972	$153,000	$2,100,396	$1,335,748	$33,800	$1,290,133	$3,765,314	$537,213	8
$2,499,388	$173,500	$4,624,059	$2,097,541	$184,022	$2,368,629	$3,862,803	$905,115	9
$9,584,337	$496,204	$4,224,759	$2,457,459	$71,309	$3,287,532	$3,652,700	$650,945	10
24	4	47	50	5	155	6	4	11
239	21	353	107	8	216	256	65	12
$547,862	$23,900	$614,910	$134,345	$6,650	$260,277	$449,996	$112,514	13
44	.....	57	10	1	25	45	10	14
$234,656	.....	$224,127	$27,000	$1,000	$52,450	$174,605	$41,460	15
195	21	296	97	7	191	211	55	16
$313,206	$23,900	$390,783	$107,345	$5,650	$207,827	$275,391	$71,054	17
174	18	278	90	6	167	186	46	18
$303,655	$22,500	$382,739	$104,398	$5,150	$196,656	$264,575	$67,586	19
21	3	18	7	1	24	25	9	20
$9,551	$1,400	$8,044	$2,947	$500	$11,171	$10,816	$3,468	21
5,287	1,088	8,186	3,520	193	5,303	6,428	1,630	22
3,990	956	6,221	2,787	183	4,128	5,219	1,453	23
4,678	1,028	7,074	3,117	184	4,716	5,942	1,537	24
$2,081,015	$451,960	$3,003,491	$1,424,578	$45,340	$2,065,752	$2,474,042	$528,279	25
3,846	789	6,120	2,395	142	4,013	4,644	1,303	26
$1,833,344	$394,919	$2,775,797	$1,244,051	$38,031	$1,905,718	$2,118,454	$479,132	27
735	239	786	636	42	346	1,039	157	28
$229,597	$57,041	$197,093	$166,424	$7,309	$93,706	$309,949	$37,101	29
97	.....	168	86	.....	357	259	77	30
$18,074	.....	$30,601	$14,103	.....	$66,328	$45,639	$12,046	31
3,904	749	6,004	2,420	147	4,087	4,672	1,294	32
3,652	761	6,065	2,451	143	4,023	4,549	1,303	33
3,882	783	6,160	2,467	143	4,086	4,537	1,291	34
3,877	790	6,171	2,476	140	4,112	4,695	1,304	35
3,821	810	6,131	2,415	148	4,103	4,635	1,296	36
3,688	788	6,083	2,327	140	3,949	4,593	1,295	37
3,743	784	5,894	2,243	140	3,932	4,650	1,291	38
3,757	779	6,038	2,336	140	3,814	4,539	1,310	39
3,888	800	5,870	2,355	137	3,995	4,519	1,277	40
3,959	805	6,247	2,412	140	3,985	4,696	1,341	41
3,967	810	6,396	2,422	143	4,031	4,764	1,307	42
4,008	814	6,378	2,417	143	4,034	4,885	1,323	43
830	237	810	641	42	352	1,047	150	44
804	214	784	686	42	349	1,031	148	45
786	216	795	672	42	349	1,005	157	46
760	229	789	680	42	350	1,036	156	47
746	237	771	661	42	346	1,008	147	48
694	238	781	642	42	339	970	168	49
631	232	734	579	42	349	1,045	165	50
643	222	737	584	42	337	1,035	159	51
699	254	724	604	42	361	1,026	158	52
738	270	804	613	42	351	1,076	159	53
733	269	847	633	42	330	1,067	162	54
750	250	856	639	42	339	1,123	161	55
97	.....	147	85	.....	383	258	66	56
98	.....	142	77	.....	378	251	67	57
97	.....	148	82	.....	374	253	67	58
92	.....	160	83	.....	378	261	65	59
93	.....	161	80	.....	363	260	65	60
89	.....	184	82	.....	348	258	78	61
97	.....	172	87	.....	342	257	93	62
89	.....	176	92	.....	337	273	95	63
100	.....	174	89	.....	344	257	86	64
104	.....	182	94	.....	342	258	82	65
104	.....	181	94	.....	346	262	80	66
104	.....	191	89	.....	349	264	79	67
$866,829	$111,478	$809,580	$210,395	$13,366	$556,083	$1,138,065	$200,461	68
$7,517	$250	$31,554	$29,067	$822	$68,990	$4,805	$810	69
$85,717	$14,478	$35,296	$34,749	$1,106	$28,293	$49,140	$16,187	70
$756,802	$96,750	$738,914	$140,586	$11,438	$455,595	$1,080,120	$183,464	71
$16,793	.....	$3,816	$5,993	.....	$3,205	$4,000	.....	72
$3,110,910	$636,469	$4,513,768	$1,402,373	$95,210	$3,174,507	$3,087,781	$913,196	73
$2,031,072	$309,296	$2,755,553	$689,825	$13,000	$2,068,174	$1,653,059	$495,539	74
5,335,681	1,253,651	6,095,590	3,159,877	751,376	4,598,202	7,281,216	3,830,036	75
$160,016	$23,646	$165,728	$63,124	$14,834	$94,373	$205,321	$106,164	76
26,412	.....	4,499,357	181,779	.....	387,827	2,000	1,500	77
$1,369	.....	$200,414	$9,035	.....	$21,283	$100	$160	78
186,838	1,157,160	751,999	892,166	4,000	4,484,594	1,701,566	174,841	79
$8,137	$25,034	$23,884	$37,096	$220	$151,687	$61,948	$5,708	80
$393,711	$74,451	$411,178	$202,074	$10,767	$342,671	$513,837	$88,776	81
$5,512	$50	$9,497	$8,564	.....	$8,772	$20	$13,180	82
$176,010	$2,443	$200,419	$78,617	$3,610	$198,651	$251,169	$41,169	83
$287,452	$174,296	$631,996	$277,042	$48,635	$264,743	$305,883	$76,020	84
$47,631	$27,253	$115,099	$36,996	$4,144	$24,153	$96,444	$86,480	85

[1] Includes establishments distributed as follows: Alabama, 1; Delaware, 2; Indiana, 1; Maine, 1; Maryland, 2; Ohio, 1; West Virginia, 1.

TABLE 5.—DYEING AND FINISHING

		United States.	Connecticut.	Illinois.	Kentucky.
	Products:				
86	Aggregate value	$44,963,331	$2,269,967	$86,960	$179,123
	Wool dyed—				
87	Pounds	2,408,511			
88	Value	$83,071			
	Yarn dyed—				
	Woolen—				
89	Pounds	20,755,984		39,600	
90	Value	$557,001		$2,900	
	Worsted—				
91	Pounds	8,474,562			
92	Value	$491,291			
	Piece goods, dyed—				
	Woolen—				
93	Square yards	11,243,394		350,000	
94	Value	$451,864		$18,400	
	Worsted—				
95	Square yards	9,413,337			
96	Value	$476,951			
	Cotton stock—				
	Bleached—				
97	Pounds	300,650			
98	Value	$4,823			
	Dyed—				
99	Pounds	12,466,700		40,000	
100	Value	$572,661		$2,000	
	Cotton yarn—				
	Bleached—				
101	Pounds	12,780,518			
102	Value	$252,635			
	Dyed—				
103	Pounds	54,103,555	360,000	1,960,000	1,651,347
104	Value	$2,226,912	$16,500	$34,600	$38,769
	Mercerized—				
105	Pounds	868,851		1,000	
106	Value	$159,616		$150	
	Cotton piece goods—				
	Bleached—				
107	Square yards	964,902,367	290,000	3,456,600	
108	Value	$6,691,423	$2,400	$17,283	
	Dyed—				
109	Square yards	559,480,339	84,204,496	830,000	13,000,000
110	Value	$7,585,204	$1,290,441	$7,252	$140,354
	Mercerized—				
111	Square yards	7,973,506	580,000		
112	Value	$400,118	$29,000		
	Printed—				
113	Square yards	940,450,338	45,755,428		
114	Value	$15,997,087	$827,885		
	Silk, dyed—				
115	Pounds	5,609,444		5,200	
116	Value	$3,615,644		$2,600	
	Spun silk, dyed—				
117	Pounds	329,063		50	
118	Value	$133,785		$25	
	Silk piece goods—				
	Dyed—				
119	Square yards	14,340,796		11,500	
120	Value	$481,463		$567	
	Printed—				
121	Square yards	3,681,652			
122	Value	$335,154			
	Mixed goods—				
123	Value	$2,180,278			
124	All other work done	$2,266,350	$103,741	$1,183	
	Machinery:				
	Printing machines—				
125	Total number	334	16		1
	On cotton—				
126	Number	321	16		1
	On silk—				
127	Number	13			
	Comparison of products:				
128	Number of establishments reporting for both years	242	4	4	2
129	Value for census year	$39,860,765	$1,967,267	$86,960	$167,063
130	Value for preceding business year	$34,031,844	$1,425,445	$88,326	$116,422
	Power:				
131	Number of establishments reporting	273	5	4	3
132	Total horsepower	71,187	5,109	159	324
	Owned—				
	Engines—				
	Steam—				
133	Number	1,535	89	6	7
134	Horsepower	57,216	2,553	159	280
	Gas or gasoline—				
135	Number	2			
136	Horsepower	8			
	Water wheels—				
137	Number	86	15		
138	Horsepower	9,474	2,156		
	Electric motors—				
139	Number	131	6		3
140	Horsepower	1,949	385		40
	Other power—				
141	Number	9			
142	Horsepower	1,621			
	Rented—				
143	Electric horsepower	50	15		
144	All other horsepower	866			4
	Furnished to other establishments—				
145	Horsepower	285	125		

TEXTILES: BY STATES, 1900—Continued.

Massachusetts.	New Hampshire.	New Jersey.	New York.	North Carolina.	Pennsylvania.	Rhode Island.	All other states.[1]	
$8,868,290	$1,328,319	$10,488,963	$3,625,882	$175,750	$7,068,012	$8,484,878	$2,417,187	86
40,328	.....	150,798	169,187	.....	1,988,000	.....	60,198	87
$2,043	.....	$9,151	$9,388	.....	$56,470	.....	$6,019	88
100,800	.....	.....	190,000	.....	20,425,584	.....	.....	89
$7,059	.....	.....	$9,400	.....	$537,642	.....	.....	90
382,525	.....	62,800	673,560	.....	6,487,737	858,000	9,940	91
$29,002	.....	$1,395	$44,356	.....	$343,844	$68,700	$994	92
.....	.....	600,368	.....	.....	9,901,550	391,476	.....	93
.....	.....	$36,609	.....	.....	$381,196	$15,659	.....	94
438,520	.....	.....	.....	.....	5,381,206	1,265,133	2,328,478	95
$19,952	.....	.....	.....	.....	$227,878	$50,605	$178,516	96
29,650	6,000	.....	200,000	.....	60,000	.....	5,000	97
$1,743	$180	.....	$1,000	.....	$1,750	.....	$150	98
2,771,290	99,452	1,720,699	1,837,281	50,000	5,347,978	600,000	.....	99
$249,114	$3,847	$29,990	$54,477	$1,030	$196,203	$36,000	.....	100
6,453,500	150,000	28,500	57,156	.....	3,637,567	2,453,795	.....	101
$98,662	$4,500	$2,280	$2,720	.....	$89,123	$55,350	.....	102
7,158,907	2,500	189,991	1,440,328	.....	34,174,822	6,709,637	456,023	103
$294,909	$125	$22,000	$85,168	.....	$1,265,786	$438,163	$30,892	104
.....	.....	2,000	1,100	.....	786,751	78,000	.....	105
.....	.....	$3,000	$110	.....	$146,996	$9,360	.....	106
276,321,266	18,736,899	70,447,673	23,197,762	2,715,663	6,814,458	388,442,903	174,479,143	107
$1,637,830	$130,007	$745,542	$202,410	$16,262	$50,086	$2,605,031	$1,284,572	108
90,458,727	7,918,490	91,876,898	19,041,259	.....	63,547,553	108,125,288	80,477,628	109
$1,060,761	$93,044	$1,340,301	$227,353	.....	$1,023,829	$1,576,822	$825,047	110
.....	.....	36,322	.....	.....	79,410	7,277,774	.....	111
.....	.....	$1,365	.....	.....	$4,461	$365,292	.....	112
262,619,600	50,418,199	187,425,755	150,432,209	.....	79,013,243	162,185,904	2,600,000	113
$5,135,021	$885,405	$2,909,981	$1,872,721	.....	$1,428,500	$2,859,574	$78,000	114
.....	.....	4,837,010	350,460	.....	416,774	.....	.....	115
.....	.....	$3,287,048	$124,411	.....	$201,585	.....	.....	116
.....	.....	220,629	41,000	.....	67,384	.....	.....	117
.....	.....	$109,257	$10,796	.....	$13,707	.....	.....	118
.....	.....	13,997,451	331,845	.....	.....	.....	.....	119
.....	.....	$459,675	$21,221	.....	.....	.....	.....	120
262,964	.....	3,394,688	24,000	.....	.....	.....	.....	121
$20,350	.....	$312,880	$1,924	.....	.....	.....	.....	122
$44,618	$192,500	$640,740	$303,422	$124,000	$542,141	$332,857	.....	123
$267,226	$18,711	$574,749	$655,005	$34,458	$526,815	$71,465	$12,997	124
69	16	64	60	.....	41	65	2	125
69	16	56	55	.....	41	65	2	126
.....	.....	8	5	.....	.....	.....	.....	127
29	2	44	35	2	90	21	9	128
$7,979,753	$1,124,305	$8,722,830	$3,470,303	$113,000	$6,334,059	$7,478,038	$2,417,187	129
$6,774,611	$1,044,960	$7,876,560	$3,079,998	$115,000	$5,205,184	$6,478,137	$1,827,201	130
37	4	49	41	4	93	24	9	131
14,417	535	12,463	6,885	350	10,107	15,897	4,941	132
281	1	339	203	10	316	256	27	133
11,932	10	10,943	6,321	345	9,579	12,643	2,451	134
.....	.....	.....	2	.....	.....	.....	.....	135
.....	.....	.....	8	.....	.....	.....	.....	136
24	4	17	6	.....	1	7	12	137
2,360	515	1,330	440	.....	35	675	1,963	138
9	.....	4	.....	1	1	92	15	139
125	.....	128	.....	5	7	1,077	182	140
.....	.....	1	.....	.....	3	5	.....	141
.....	.....	4	.....	.....	120	1,500	.....	142
.....	.....	.....	35	.....	.....	.....	.....	143
.....	10	58	81	.....	366	2	345	144
.....	.....	.....	30	10	120	.....	.....	145

[1] Includes establishments distributed as follows: Alabama, 1; Delaware, 2; Indiana, 1; Maine, 1; Maryland, 2; Ohio, 1; West Virginia, 1.

TABLE 5.—DYEING AND FINISHING

		United States.	Connecticut.	Illinois.	Kentucky.
	Establishments classified by number of persons employed not including proprietors and firm members:				
146	Total number of establishments	298	5	4	3
147	Under 5	19		1	
148	5 to 20	82			
149	21 to 50	71	1	2	2
150	51 to 100	50		1	1
151	101 to 250	39	2		
152	251 to 500	13	1		
153	501 to 1,000	18			
154	Over 1,000	3	1		

TEXTILES: BY STATES, 1900—Continued.

Massachusetts.	New Hampshire.	New Jersey.	New York.	North Carolina.	Pennsylvania.	Rhode Island.	All other States.[1]	
37	5	59	42	5	105	24	9	146
1	2	3	1	.....	10	1	.....	147
7	.....	14	18	3	39	1	.....	148
6	.....	10	13	.....	34	2	1	149
10	.....	14	3	1	16	2	2	150
8	2	6	4	1	3	12	1	151
3	.....	7	1	.....	.....	1	.....	152
2	1	5	2	.....	2	4	2	153
.....	.....	.....	.....	.....	1	1	.....	154

[1] Includes establishments distributed as follows: Alabama, 1; Delaware, 2; Indiana, 1; Maine, 1; Maryland, 2; Ohio, 1; West Virginia, 1.

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